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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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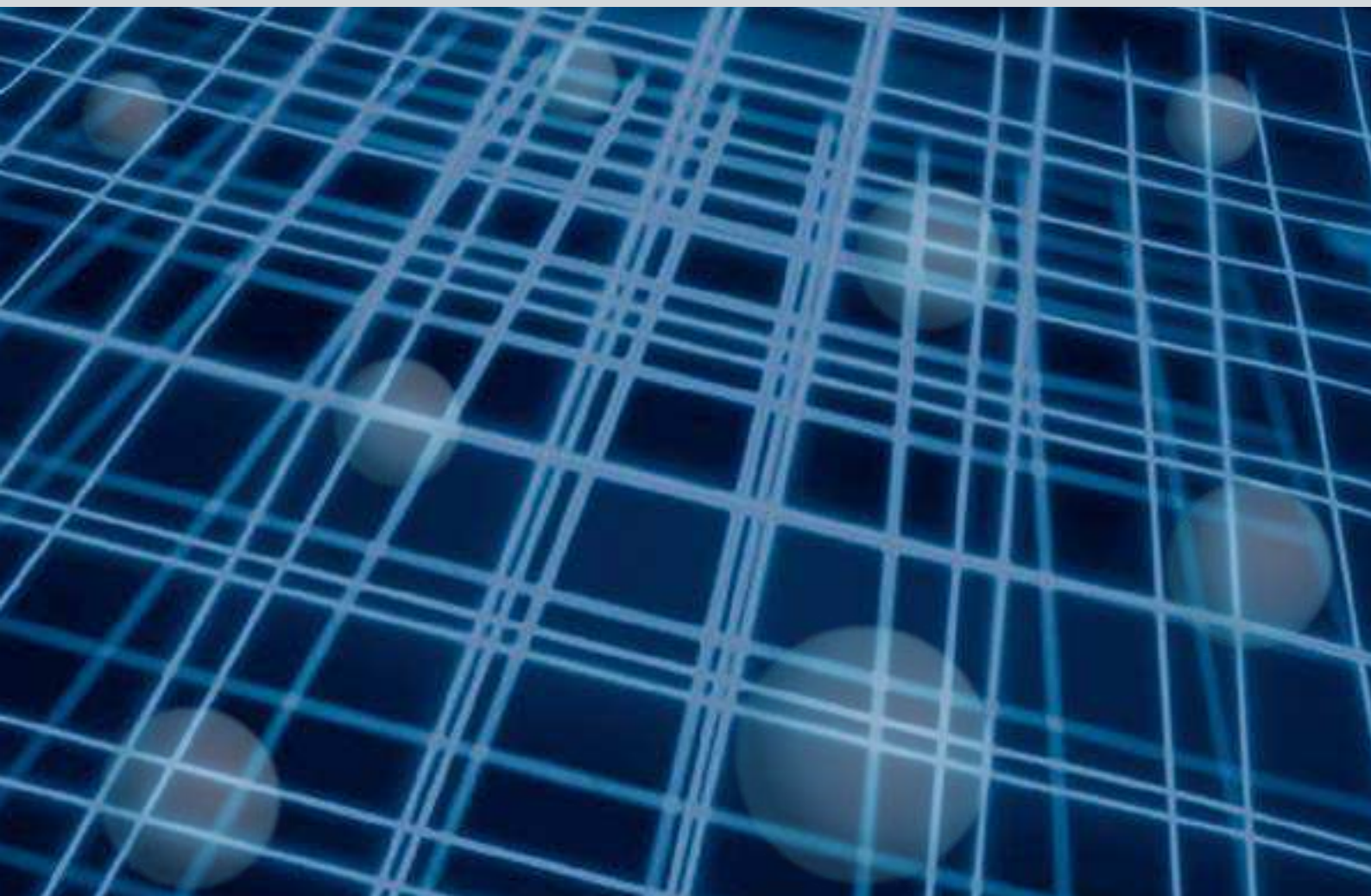
Selection Catalog



Discrete Semiconductors

Small Signal Device

Ver.1.0



Small Signal Devices

Transistors

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MOSFETs

● Quick Reference for Small Signal MOSFET Series

	Drive Voltage (V)	V _{oss} (V)	I _D (A)																			Package		
			0.1 / 0.15		0.2		0.25		0.3/0.31		0.4		0.5		0.6		0.7		1		1.4			
			No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.				
Single Type	0.9	50		RYM002N05 (N)	20																	SOT-723 (VMT3)		
				RE1J002YN (N)	36																	SOT-416FL (EMT3F)		
				RU1J002YN (N)	52																		SOT-323FL (UMT3F)	
				RYC002N05 (N)	63																		SOT-23 (SST3)	
	1.2	20	<i>New</i> RV3C002UN(N)	1											<i>New</i> RV3C006BC(P)	4							DFN0604 (VML0604)	
			<i>New</i> RV3C001ZP(P)	2																			DFN0806 (VML0806)	
			RV1C002UN (N)	6					<i>New</i> RV1C001ZP HC0(P)	9			<i>New</i> RV1C002UN HC0(N)	7									DFN1006 (VML1006)	
			RV1C001ZP (P)	8																				
			<i>New</i> RV2C001ZP(P)	14	<i>New</i> RV2C002UN(N)	13													<i>New</i> RV2C010UN (N)	12	<i>New</i> RV2G014GN(N)	19	DFN1006 (VML1006)	
			RUM001L02 (N)	21	RUM002N02 (N)	22																	SOT-723 (VMT3)	
			RZM001P02 (P)	24	RZM002P02 (P)	25										<i>New</i> RZM002P02 HC1(P)	29							
			RE1C001UN (N)	33	<i>New</i> RE1C002UN (N)	34										RE1C002UN HC0(N)	35						SOT-416FL (EMT3F)	
			RE1C001ZP (P)	39	<i>New</i> RE1C002ZP (P)	40										RE1C002ZP HC1(P)	41							
			RU1C001UN (N)	50	RU1C002UN (N)	51																	SOT-323FL (UMT3F)	
			RU1C001ZP (P)	54	RU1C002ZP (P)	55																		
			50		RUM002N05 (N)	23																		SOT-723 (VMT3)
		RUC002N05 (N)		61																		SOT-23 (SST3)		
	1.8	20													<i>New</i> RUM003N02 HC2(N)	28							SOT-723 (VMT3)	
															<i>New</i> RV3C006BC (P)	4							DFN0604 (VML0604)	
																			<i>New</i> RV2C014BC(P)	17			DFN1006 (VML1006)	
																							DFN0604 (VML0604)	
	2.5	30																	<i>New</i> RV3E007AJ (N)	3				DFN0806 (VML0806)
																							DFN0604 (VML0604)	
																				<i>New</i> RV1E008AJ(N)	10			DFN0806 (VML0806)
																							DFN1006 (VML1006)	
		60																						DFN0604 (VML0604)
								RSM002N06 (N)	26															DFN0806 (VML0806)
								<i>New</i> RE1L002SN (N)	37			<i>New</i> RE1L002SN HC1(N)	38											SOT-723 (VMT3)
							RU1L002SN (N)	53															SOT-416FL (EMT3F)	
4/4.5	30																		<i>New</i> RV2E012AT(P)	17				SOT23 (SST3)
							RSM002P03 (P)	27															DFN1006 (VML1006)	
							RE1E002SP (P)	42															SOT-723 (VMT3)	
							RU1E002SP (P)	56															SOT-416FL (EMT3F)	
	60						RSC002P03 (P)	64																SOT-323FL (UMT3F)
																								DFN1006 (VML1006)
														<i>New</i> RV1L004GN(N)	11								DFN0806 (VML0806)	
														<i>New</i> RV3L004GN(N)	5								DFN0604 (VML0604)	
Dual Type	0.9	50																					DFN1006 (VML1006)	
																							SOT-563 (EMT6)	
																							SOT-363 (UMT6)	
	1.2	20	VT6K1 (N+N)	30																				VMT6
			VT6J1 (P+P)	31																				
			VT6M1 (N+P)	32																				
	50																							SOT-563 (EMT6)
																								SOT-363 (UMT6)
	1.8	20																						SOT-563 (EMT6)
																								SOT-563 (EMT6)
																								SOT-363 (UMT6)
	2.5	60																						SOT-363 (UMT6)
4	30																							SOT-363 (UMT6)

Character "N", "P" in parentheses indicates "N-channel", "P-channel" respectively.

☆: Under development

Small Signal MOSFET Series																
Package	Application	No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (Ta=25°C)	R _{DS} (on) Typ. (Ω)							Drive Voltage (V)	
								V _{GS} (V)								
								0.9	1.2	1.5 (1.8)	2.5	4	4.5	10		
DFN0604 (0604) <VML0604>		1 <i>New</i>	RV3C002UN	N	20	0.15	0.1	—	3.8	2.7	2.2	—	1.4	—	1.2	
		2 <i>New</i>	RV3C001ZP	P	−20	−0.1	0.1	—	10	6	3.4	—	2.5	—		
		3 <i>New</i>	RV3E007AJ	N	30	$\frac{0.7}{(P_{W} \leq 5s)}$	0.5	—	—	—	0.375	—	0.275	—	2.5	
		4 <i>New</i>	RV3C006BC	P	−20	$\frac{-0.6}{(P_{W} \leq 5s)}$	0.5	—	—	(0.61)	0.5	—	0.39	—	1.8	
		5 <i>New</i>	RV3L004GN	N	60	$\frac{0.4}{(P_{W} \leq 5s)}$	$\frac{0.1}{0.5(P_{W} \leq 5s)}$	—	—	—	—	—	2.5	1.7	4.5	
DFN0806 (0806) <VML0806>		6	RV1C002UN	N	20	0.15	0.1	—	3.8	2.7	1.7	—	1.4	—	1.2	
		7 <i>New</i>	RV1C002UN HC0	N	20	$\frac{0.15}{0.5(P_{W} \leq 5s)}$	$\frac{0.1}{0.55(P_{W} \leq 5s)}$	—	3.8	2.7	1.7	—	1.4	—		
		8	RV1C001ZP	P	−20	−0.1	0.1	—	10	6	4.8	3.4	2.5	—		
		9 <i>New</i>	RV1C001ZP HC0	P	−20	$\frac{-0.1}{-0.3(P_{W} \leq 5s)}$	$\frac{0.1}{0.55(P_{W} \leq 5s)}$	—	10	6	4.8	3.4	2.5	—		
		10 <i>New</i>	RV1E008AJ	N	30	$\frac{0.8}{(P_{W} \leq 5s)}$	$\frac{0.1}{0.55(P_{W} \leq 5s)}$	—	—	—	0.76	—	0.52	—	2.5	
		11 <i>New</i>	RV1L004GN	N	60	$\frac{0.4}{(P_{W} \leq 5s)}$	$\frac{0.1}{0.6(P_{W} \leq 5s)}$	—	—	—	—	—	2.5	1.7	4.5	
DFN1006 (1006) <VML1006>		12 <i>New</i>	RV2C010UN	N	20	1	0.1	—	0.7	0.54	0.4	—	0.34	—	1.2	
		13 <i>New</i>	RV2C002UN	N	20	0.18	0.1	—	3.8	2.7	1.7	—	1.4	—		
		14 <i>New</i>	RV2C001ZP	P	−20	−0.1	0.1	—	10	6	3.4	—	2.5	—		
		15 <i>New</i>	RV2E014AJ	N	30	$\frac{1.4}{(P_{W} \leq 5s)}$	$\frac{0.6}{(P_{W} \leq 5s)}$	—	—	—	0.2	—	0.17	—	2.5	
		16 <i>New</i>	RV2L009GN	N	60	$\frac{0.9}{(P_{W} \leq 5s)}$	$\frac{0.6}{(P_{W} \leq 5s)}$	—	—	—	—	—	0.63	0.46	4.5	
		17 <i>New</i>	RV2E012AT	P	−30	$\frac{-1.2}{(P_{W} \leq 5s)}$	$\frac{0.6}{(P_{W} \leq 5s)}$	—	—	—	—	—	0.44	0.32		
		18 <i>New</i>	RV2C014BC	P	−20	$\frac{-1.4}{(P_{W} \leq 5s)}$	$\frac{0.6}{(P_{W} \leq 5s)}$	—	—	(0.37)	0.28	—	0.22	—		1.8
		19 <i>New</i>	RV2G014GN	N	40	1.4	0.6	—	—	—	—	—	0.25	0.3	4.5	
		SOT-723 (1212) <VMT3>		20	RYM002N05	N	50	0.2	0.15	3	2.2	2	1.7	—	1.6	—
21	RUM001L02			20	0.1		0.15	—	6	4.5	3.8	3	2.5	—	1.2	
22	RUM002N02			20	0.2		0.15	—	1.6	—	0.8	—	—	—		
23	RUM002N05			50	0.2		0.15	—	2.4	—	1.7	—	1.6	—		
24	RZM001P02			−20	−0.1	0.15	—	10	6	4.8	3.4	2.5	—			
25	RZM002P02			P	−20	−0.2	0.15	—	2.4	—	1	—	0.8	—		2.5
26	RSM002N06			N	60	0.25	0.15	—	—	—	3	2.3	2.1	1.7		
27	RSM002P03			P	−30	−0.2	0.15	—	—	—	—	1.6	1.4	0.9	4	
28 <i>New</i>	RUM003N02 HC2			N	20	$\frac{0.67}{(P_{W} \leq 5s)}$	$\frac{0.45}{(P_{W} \leq 5s)}$	—	—	(1.0)	0.8	0.7	—	—	1.8	
29 <i>New</i>	RZM002P02 HC1			P	−20	$\frac{-0.61}{(P_{W} \leq 5s)}$	$\frac{0.45}{(P_{W} \leq 5s)}$	—	2.4	1.6	1.0	—	0.8	—	1.2	
VMT6 (1212)	Switching	30	VT6K1	N+N	20	0.1	0.15	—	6	4.5	3.8	3	2.5	—	1.2	
		31	VT6J1	P+P	−20	−0.1	0.15	—	10	6	4.8	3.4	2.5	—		
		32	VT6M1	N	20	0.1	0.15	—	6	4.5	3.8	3	2.5	—		
				P	−20	−0.1	0.15	—	10	6	4.8	3.4	2.5	—		
SOT-416FL (1616) (SC-89) <EMT3F>		33	RE1C001UN	N	20	0.1	0.15	—	6	4.5	3.8	3	2.5	—	1.2	
		34 <i>New</i>	RE1C002UN		20	0.2	0.15	—	1.6	—	0.8	—	—	—		
		35	RE1C002UN HC0		20	$\frac{0.65}{(P_{W} \leq 5s)}$	$\frac{0.5}{(P_{W} \leq 5s)}$	—	1.6	—	0.8	—	—	—		
		36	RE1J002YN		50	0.2	0.15	3	2.2	2	1.7	—	1.6	—	0.9	
		37 <i>New</i>	RE1L002SN		60	0.25	0.2	—	—	—	3	2.3	2.1	1.7	2.5	
		38	RE1L002SN HC1	60	$\frac{0.46}{(P_{W} \leq 5s)}$	$\frac{0.5}{(P_{W} \leq 5s)}$	—	—	—	3.0	2.3	2.1	—	2.5		
		39	RE1C001ZP	P	−20	−0.1	0.15	—	10	6	4.8	3.4	2.5	—	1.2	
		40 <i>New</i>	RE1C002ZP		−20	−0.2	0.15	—	2.4	—	1	—	0.8	—		
		41	RE1C002ZP HC1		−20	$\frac{0.65}{(P_{W} \leq 5s)}$	$\frac{0.5}{(P_{W} \leq 5s)}$	—	2.4	—	1	—	0.8	—		
42	RE1E002SP	−30	−0.2		0.15	—	—	—	—	1.6	1.4	0.9	4			
SOT-563 (1616) (SC-107C) <EMT6>		43	EM6K34	N+N	50	0.2	0.15	3	2.2	2	1.7	—	1.6	—	0.9	
		44	EM6K7		20	0.2	0.15	—	1.6	—	0.8	—	—	—	1.2	
		45	EM6K33		50	0.2	0.15	—	2.4	—	1.7	—	1.6	—		
		46	EM6J1	P+P	−20	−0.2	0.15	—	2.4	—	1	—	0.8	—		
		47	EM6M2	N	20	0.2	0.15	—	1.6	—	0.8	0.7	—	—		
		48	EM6K6	P	−20	−0.2	0.15	—	2.4	—	1	—	0.8	—		
		49	EM6K31	N+N	20	0.3	0.15	—	—	(1)	0.8	0.7	—	—	1.8	
50	EM6K31	60	0.25	0.15	—	—	—	3	2.3	2.1	1.7	2.5				
SOT-323FL (2021) (SC-85) <UMT3F>		50	RU1C001UN	N	20	0.1	0.2	—	6	4.5	3.8	3	2.5	—	1.2	
		51	RU1C002UN		20	0.2	0.2	—	1.6	—	0.8	—	—	—		
		52	RU1J002YN		50	0.2	0.2	3	2.2	2	1.7	—	1.6	—	0.9	
		53	RU1L002SN		60	0.25	0.2	—	—	—	3	2.3	2.1	1.7	2.5	
		54	RU1C001ZP	P	−20	−0.1	0.15	—	10	6	4.8	3.4	2.5	—	1.2	
		55	RU1C002ZP		−20	−0.2	0.15	—	2.4	—	1	—	0.8	—		
		56	RU1E002SP		−30	−0.2	0.2	—	—	—	—	1.6	1.4	0.9		4
SOT-363 (2021) (SC-88) <UMT6>		57	UM6K34N	N+N	50	0.2	0.15	3	2.2	2	1.7	—	1.6	—	0.9	
		58	UM6K33N		50	0.2	0.15	—	2.4	—	1.7	—	1.6	—	1.2	
		59	UM6K31N		60	0.25	0.15	—	—	—	3	2.3	2.1	1.7	2.5	
		60	UM6J1N	P+P	−30	−0.2	0.15	—	—	—	—	1.6	1.4	0.9	4	
SOT-23 (2924) <SST3>		61	RUC002N05	N	50	0.2	0.2	—	2.4	—	1.7	—	1.6	—	1.2	
		62	RK7002BM*		60	0.25	0.2	—	—	—	3	2.3	2.1	1.7	2.5	
		63	RYC002N05		50	0.2	0.2	3	2.2	2	1.7	—	1.6	—	0.9	
		64	RSC002P03	P	−30	−0.2	0.2	—	—	—	—	1.6	1.4	0.9	4	

*Automotive grade available ☆Under development

MOSFETs

Quick Reference for Small Size Power Type MOSFET Series 1

Drive Voltage (V)	V _{oss} (V)	I _D (A)														Package																		
		0.4 to 1.6		No.		2 / 2.5		No.		3 / 3.5		No.		4 / 4.5			No.		5 / 5.5		No.		6 / 6.5		No.		7 / 7.5		No.		9 to 15		No.	
Single Type	1.5	12	RW1A013ZP (P)		6	RW1A020ZP (P) RW1A025AP (P)		5 4	RW1A030AP (P)		3																					SOT-563T (WEMT6)		
			RZF013P01 (P)		16	RZF020P01 (P)		15	RZF030P01 (P)		14	RAF040P01 (P)		13																SOT-323T (TUMT3)				
						RAL025P01 (P)		28	RAL035P01 (P)		27	RAL045P01 (P)		26																SOT-363T (TUMT6)				
												RT1A045AP (P)		48	RT1A050ZP (P)		47	RT1A060AP (P)		46										TSST8				
						RZR020P01 (P) RZR025P01 (P)		66 65				RZR040P01 (P)		64																SOT-346T (TSMT3)				
												RAQ045P01 (P)		89	RZQ050P01 (P)		88													SOT-457T (TSMT6)				
		20	RW1C015UN (N)		2	RW1C020UN (N) RW1C025ZP (P)		1 7																RQ1A060ZP (P)		115	RQ1A070ZP (P) RQ1A070AP (P)		114 121			TSMT8		
						RUF020N02 (N) RUF025N02 (N)		12 11																								SOT-563T (WEMT6)		
									RUL035N02 (N)		25																					SOT-323T (TUMT3)		
																					RT1C060UN (N)		41									SOT-363T (TUMT6)		
						RUR020N02 (N)		61				RUR040N02 (N)		60																		TSST8		
															New RQ6C050UN (N)		87							RQ1C065UN (N)		113	RQ1C075UN (N)		112			SOT-346T (TSMT3)		
	1.8	20	RUF015N02 (N)		17																			RQ1C065UN (N)		113	RQ1C075UN (N)		112			SOT-457T (TSMT6)		
	2.5	30	☆RF1E015AJ (N)		19	RTF025N03 (N)		18																								TSMT8		
									RTL035N03 (N)		32	☆RF6E045AJ (N)		33																		SOT-323T (TUMT3)		
						RTR025N03 (N)		68	☆RQ5E030AJ (N)		63	☆RQ5E040AJ (N) RTR040N03 (N)		62 67																SOT-363T (TUMT6)				
						RTQ020N03 (N)		93	RTQ035N03 (N)		92	RTQ045N03 (N)		91																		SOT-346T (TSMT3)		
			RTF016N05 (N)		20																											SOT-457T (TSMT6)		
						RTR020N05 (N) RTR025N05 (N)		72 71	RTR030N05 (N)		70																					SOT-323T (TUMT3)		
		45				RTQ020N05 (N)		96																								SOT-346T (TSMT3)		
																																SOT-457T (TSMT6)		
			RW1E014SN (N) RW1E015RP (P)		8 10	RW1E025RP (P)		9																								SOT-563T (WEMT6)		
			RSF014N03 (N) RRF015P03 (P)		21 23																											TUMT3		
						RRL025P03 (P)		37	RRL035P03 (P)		36																					TUMT6		
			RRR015P03 (P)		80	RSR025N03 (N)		74	RRR030P03 (P) RXR035N03 (N)		79 73	RRR040P03 (P)		78																		SOT-346T (TSMT3)		
	4	30				RSQ020N03 (N) ☆RRQ020P03 (P)		102 107	RRQ030P03 (P)		106	RXQ040N03 (N) RSQ045N03 (N) RRQ045P03 (P)		100 101 105																		SOT-457T (TSMT6)		
												RT1E040RP (P)		50	RT1E050RP (P)		49	RT1E060XN (N)		42										TSST8				
															RQ1E050RP (P)		134							RQ1E070RP (P) RQ1E075XN (N)		135 122	RQ1E100XN (N)		120			TSMT8		
			RSF010P05 (P)		24																											SOT-323T (TUMT3)		
						New RQ5H020SP (P) RSR025N05 (N)		83 75																								SOT-346T (TSMT3)		
												RVQ040N05 (N)		103																		SOT-457T (TSMT6)		
		60	RSF015N06 (N)		22																											SOT-323T (TUMT3)		
			New RQ5L015SP (P)		84	RSR020N06 (N)		77	RSR030N06 (N)		76																					SOT-346T (TSMT3)		
			RSQ015N06 (N)		104																											SOT-457T (TSMT6)		
			RSR010N10 (N)		85																											SOT-346T (TSMT3)		
			New RQ6P015SP (P)		111																											SOT-457T (TSMT6)		
			4.5	30				☆RQ5E025AT (P)		82	New RQ5E035BN (N) New RQ5E035AT (P)		69 81																					SOT-346T (TSMT3)
									☆RQ6E030AT (P) New RQ6E035AT (P)		110 109	New RQ6E045BN (N)		95	☆RQ6E055BN(P) New RQ6E050AT (P)		94 108												SOT-457T (TSMT6)					
															☆RQ7E055AT (P)		136															TSMT8		

Character "N", "P" in parentheses indicates "N-channel", "P-channel" respectively.

☆:Under development

● Quick Reference for Small Size Power Type MOSFET Series 2

Dual Type	Drive Voltage (V)	V _{DSS} (V)	I _D (A)															Package									
			0.5 to 1.6		No.	2 / 2.5		No.	3 / 3.5		No.	4 / 4.5		No.	5 / 5.5		No.		6 / 6.5		No.	7 / 7.5		No.	8 / 8.5		No.
Dual Type	1.5	12	US6J11 (P+P)	30	US6J12 (P+P)	29																			SOT-363T (TUMT6)		
					TT8J13 (P+P)	52	TT8J11 (P+P)	51																	TSST8		
					QS6J11 (P+P)	90																				SOT-457T (TSMT6)	
							QS8J11 (P+P)	118	QS8J2 (P+P) QS8J12 (P+P)	119 117	QS8J13 (P+P)	116														TSMT8	
		20			TT8K1 (N+N) TT8J21 (P+P) TT8M1 (N+P) TT8M3 (N+P)	43 53 54 55																			TSST8		
	1.5 / 2.5	12 / 20	US6M11 (N+P)	40																					SOT-363T (TUMT6)		
		20 / 30			TT8M2 (N+P)	56																			TSST8		
	1.8	20	US6K4 (N+N)	31																					SOT-363T (TUMT6)		
	2.5	20 / 30	US6M2 (N+P)	35																						SOT-457T (TSMT6)	
			QS6M4 (N+P)	99																						SOT-457T (TSMT6)	
			QS6K1 (N+N)	97																						SOT-457T (TSMT6)	
		30					QS8K2 (N+N)	132																		TSMT8	
			US6K1 (N+N)	34																						SOT-363T (TUMT6)	
					TT8K2 (N+N)	44																				TSST8	
					QS5K2 (N+N)	86																				SOT-25T (TSMT5)	
																										SOT-457T (TSMT6)	
		45	QS6K21 (N+N)	98																						SOT-363T (TUMT6)	
	4	30	US6M1 (N+P) US6K2 (N+N)	39 38																						SOT-363T (TUMT6)	
					TT8J2 (P+P) TT8J3 (P+P)	58 59	TT8K11 (N+N)	45																	TSST8		
					TT8M11 (N+P)			57																	TSMT8		
							QS8K11 (N+N)	127	QS8J4 (P+P) QS8K12 (N+N)	124 126	QS8J5 (P+P)	123	QS8K13 (N+N)	125													
						QS8M12 (N+P)			138																		
		45						QS8K21 (N+N)	130																		
		60			QS8M31 (N+P)			142																			
		100			QS8K51 (N+N)	131																					
			QS8M51 (N+P)			143																					
	4.5	30					☆QH8KA1 (N+N)	129	QH8MA2 (N+P)	141	☆QH8KA2 (N+N)	128	☆QH8MA3 (N+P)	140	☆QH8MA4 (N+P)	139									TSMT8		

Character "N", "P" in parentheses indicates "N-channel", "P-channel" respectively.

☆: Under development

MOSFETs

Small Size Power Type MOSFET Series 1															
Package	Application	No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (T _a =25°C)	R _{DS(on)} Typ. (mΩ)					Q _g (nC) (V _{GS} =4.5V)	Drive Voltage (V)	
								V _{GS} (V)							
								1.5	2.5	4	4.5	10			
SOT-563T (1616) (WEMT6)		1	RW1C020UN	N	20	2.0	0.7	170	95	—	75	—	2.0	1.5	
		2	RW1C015UN		20	1.5	0.7	300	170	—	130	—	1.8		
		3	RW1A030AP	P	-12	-3.0	0.7	75	40	—	30	—	22.0		4
		4	RW1A025AP		-12	-2.5	0.7	90	55	—	44	—	16.0		
		5	RW1A020ZP		-12	-2.0	0.7	200	105	—	75	—	6.5		
		6	RW1A013ZP		-12	-1.3	0.7	530	280	—	190	—	2.4		
		7	RW1C025ZP	N	-20	-2.5	0.7	120	65	—	48	—	21.0	4	
		8	RW1E014SN		30	1.4	0.7	—	—	270	250	170	1.4 ²		
		9	RW1E025RP	P	-30	-2.5	0.7	—	—	95	85	55	5.2 ²	4	
		10	RW1E015RP		-30	-1.5	0.7	—	—	190	170	115	3.2 ²		
SOT-323T (2021) (TUMT3)		11	RUF025N02	N	20	2.5	0.8	80	49	—	39	—	5.0	1.5	
		12	RUF020N02		20	2.0	0.8	170	95	—	75	—	2.0		
		13	RAF040P01	P	-12	-4.0	0.8	40	27	—	22	—	37.0		1.8
		14	RZF030P01		-12	-3.0	0.8	72	39	—	28	—	18.0		
		15	RZF020P01		-12	-2.0	0.8	200	105	—	75	—	6.5		
		16	RZF013P01		-12	-1.3	0.8	530	280	—	190	—	2.4		
		17	RUF015N02	N	20	1.5	0.8	220 ^{*1}	170	—	130	—	1.8	4	
		18	RTF025N03		30	2.5	0.8	—	70	50	48	—	3.7		
		19	☆RF1E015AJ	N	30	1.5	0.8	—	240	—	170	—	0.7	2.5	
		20	RTF016N05		45	1.6	0.8	—	200	150	140	—	2.3		
		21	RSF014N03		30	1.4	0.8	—	—	270	250	170	1.4 ²		
		22	RSF015N06		60	1.5	0.8	—	—	255	240	210	2.0 ²		
		23	RRF015P03	P	-30	-1.5	0.8	—	—	190	170	115	3.2 ²	4	
		24	RSF010P05		-45	-1.0	0.8	—	—	490	450	325	2.4 ²		
SOT-363T (2021) (TUMT6)		25	RUL035N02	N	20	3.5	1.0	66	38	—	31	—	5.7	1.5	
		26	RAL045P01	P	-12	-4.5	1.0	50	28	—	22	—	40.0		
		27	RAL035P01		-12	-3.5	1.0	75	40	—	30	—	22.0		
		28	RAL025P01		-12	-2.5	1.0	90	55	—	44	—	16.0		
		29	US6J12	P+P	-12	-2.0	1.0	200	105	—	75	—	7.6		
		30	US6J11		-12	-1.3	1.0	530	280	—	190	—	2.4		
		31	US6K4	N+N	20	1.5	1.0	220 ^{*1}	170	—	130	—	1.8	1.8	
		32	RTL035N03	N	30	3.5	1.0	—	56	42	40	—	4.6		
		33	☆RF6E045AJ		30	4.5	1.0	—	21	—	15	—	5.3		
		34	US6K1	N+N	30	1.5	1.0	—	240	180	170	—	1.6		2.5
		35	US6M2	N	30	1.5	1.0	—	240	180	170	—	1.6		
		36	US6M2		P	-20	-1.0	1.0	—	570	310	280	—	2.1	
		37	RRL035P03	P	-30	-3.5	1.0	—	—	60	55	40	8.0 ²	4	
		38	RRL025P03		-30	-2.5	1.0	—	—	95	85	55	5.2 ²		
		39	US6K2	N+N	30	1.4	1.0	—	—	270	250	170	1.4 ²		4
		40	US6M1		N	30	1.4	1.0	—	—	270	250	170		
		TSST8 (3019)		41	US6M11	P	-20	-1.0	1.0	—	570	310	280	—	2.1
42	US6M11			N	20		1.5	1.0	300	170	—	130	—	1.8	
43	US6M11			P	-12	-1.3	1.0	530	280	—	190	—	2.4	1.5	
44	RT1C060UN				N	20	6.0	1.25	33	24	—	20	—		11.0
45	RT1E060XN			30		6.0	1.25	—	—	23	21	16	6.8 ²		
46	TT8K1			20		2.5	1.25	100	65	—	52	—	3.6	1.5	
47	TT8K2			30		2.5	1.25	—	95	70	65	—	3.2	2.5	
48	TT8K11			N+N	30	3.0	1.25	—	—	78	67	51	2.5 ²	4	
49	RT1A060AP				-12	-6.0	1.25	27	17	—	14	—	80.0	1.5	
50	RT1A050ZP				-12	-5.0	1.25	48	26	—	19	—	34.0		
51	RT1A045AP				-12	-4.5	1.25	50	28	—	22	—	40.0		
52	RT1E050RP			P	-30	-5.0	1.25	—	—	40	36	26	13.0 ²		4
53	RT1E040RP				-30	-4.0	1.25	—	—	52	45	32	10.5		
54	TT8J11				P+P	-12	-3.5	1.25	75	41	—	31	—	22.0	
55	TT8J13			-12		-2.5	1.25	90	55	—	44	—	16.0		
56	TT8J21			-20		-2.5	1.25	140	68	—	49	—	12.0		
57	TT8M1			N		20	2.5	1.25	100	65	—	52	—	3.6	1.5
58	TT8M1				P	-20	-2.5	1.25	140	68	—	49	—	12.0	
59	TT8M3			N	20	2.5	1.25	100	65	—	52	—	3.6		
60	TT8M3	P	-20		-2.4	1.25	180	105	—	80	—	6.7			
61	TT8M2	N	30	2.5	1.25	—	95	70	65	—	3.2	2.5			
62	TT8M2		P	-20	-2.5	1.25	140	68	—	49	—	12.0	1.5		
63	TT8M11	N	30	3.0	1.25	—	—	78	67	51	2.5 ²	4			
64	TT8M11		P	-30	-2.5	1.25	—	—	115	95	60		4.8 ²		
65	TT8J2	P+P	-30	-2.5	1.25	—	—	115	95	60	4.8 ²				
66	TT8J3		-30	-2.5	1.25	—	—	120	100	65	4.8 ²				

*1 :V_{GS}=1.8V *2 :V_{GS}=5V

☆:Under development

Small Size Power Type MOSFET Series 2														
Package	Application	No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (T _a =25°C)	R _{DS(on)} Typ. (mΩ)					Q _g (nC) (V _{GS} =4.5V)	Drive Voltage (V)
								V _{GS} (V)						
								1.5	2.5	4	4.5	10		
SOT-346T (2928) (SC-96) (TSMT3) 	Load switch Switching	60	RUR040N02	N	20	4.0	1.00	55	33	—	25	—	8.0	1.5
		61	RUR020N02		20	2.0	1.00	170	95	—	75	—	2.0	
		62	☆RQ5E040AJ		30	4.0	1.00	—	39	—	27	—	2.9	2.5
		63	☆RQ5E030AJ	30	3.0	1.00	—	77	—	59	—	2.2		
		64	RZR040P01	P	-12	-4.0	1.00	55	30	—	22	—	30.0	1.5
		65	RZR025P01		-12	-2.5	1.00	110	60	—	44	—	13.0	
		66	RZR020P01		-12	-2.0	1.00	200	105	—	75	—	6.5	2.5
		67	RTR040N03	30	4.0	1.00	—	47	36	34	—	5.9		
		68	RTR025N03	30	2.5	1.00	—	95	70	66	—	3.3		
		69	New RQ5E035BN	30	3.5	1.00	—	—	—	46	38	1.5	4.5	
		70	RTR030N05	N	45	3.0	1.00	—	68	53	48	—	6.2	2.5
		71	RTR025N05		45	2.5	1.00	—	125	100	95	—	3.2	
		72	RTR020N05		45	2.0	1.00	—	180	135	130	—	2.9	4
		73	RXR035N03	30	3.5	1.00	—	—	50	45	35	3.3*		
		74	RSR025N03	30	2.5	1.00	—	—	83	74	50	2.9*		
		75	RSR025N05	45	2.5	1.00	—	—	105	95	70	3.6		
		76	RSR030N06	60	3.0	1.00	—	—	75	70	60	5.0*		
		77	RSR020N06	60	2.0	1.00	—	—	150	140	120	2.7*	4	
		78	RRR040P03	-30	-4.0	1.00	—	—	52	45	32	10.5*		
		79	RRR030P03	-30	-3.0	1.00	—	—	95	85	55	5.2*	4.5	
		80	RRR015P03	P	-30	-1.5	1.00	—	—	190	170	115		3.2*
		81	New RQ5E035AT		-30	-3.5	1.00	—	—	—	54	38	5.2	
		82	☆RQ5E025AT		-30	-2.5	1.00	—	—	—	116	76	2.5	
		83	New RQ5H020SP	N	-45	-2.0	1.00	—	—	200	180	130	5.0	4
		84	New RQ5L015SP		-60	-1.5	1.00	—	—	255	240	200	5.0	
		85	RSR010N10		N	100	1.0	1.00	—	—	470	460	440	34.0*
SOT-25T (2928) (TSMT5) 		86	QS5K2	N+N	30	2.0	1.25	—	110	76	71	—	2.8	2.5
SOT-457T (2928) (SC-95) (TSMT6) 		87	New RQ6C050UN	N	20	5.0	1.25	40	27	—	22	—	12.0	1.5
		88	RZQ050P01	P	-12	-5.0	1.25	44	26	—	19	—	35.0	
		89	RAQ045P01	P+P	-12	-4.5	1.25	50	28	—	22	—	40.0	
		90	QS6J11		-12	-2.0	1.25	200	105	—	75	—	6.5	2.5
		91	RTQ045N03		30	4.5	1.25	—	42	32	30	—	7.6	
		92	RTQ035N03	N	30	3.5	1.25	—	55	40	38	—	4.6	4.5
		93	RTQ020N03		30	2.0	1.25	—	138	94	89	—	2.4	
		94	☆RQ6E055BN		30	5.5	1.25	—	—	—	30	19	4.4	
		95	New RQ6E045BN	30	4.5	1.25	—	—	—	35	21	4.7	2.5	
		96	RTQ020N05	45	2.0	1.25	—	200	150	140	—	2.3		
		97	QS6K1	N+N	30	1.0	1.25	—	260	180	170	—		1.7
		98	QS6K21		45	1.0	1.25	—	415	—	310	300	1.5	2.5
		99	QS6M4		N	30	1.5	1.25	—	260	180	170	—	
		100	RXQ040N03	P	-20	-1.5	1.25	—	310	170	155	—	3.0	4
		101	RSQ045N03	N	30	4.0	1.25	—	—	50	45	35	3.3*	
		102	RSQ020N03		30	4.5	1.25	—	—	40	36	27	6.8*	
		103	RVQ040N05		30	2.0	1.25	—	—	168	148	96	2.2*	
		104	RSQ015N06	45	4.0	1.25	—	—	53	47	38	6.3	2.5	
		105	RRQ045P03	60	1.5	1.25	—	—	255	240	210	2.0*		
		106	RRQ030P03	P	-30	-4.5	1.25	—	—	38	34	25	14.0*	
		107	☆RRQ020P03		-30	-3.0	1.25	—	—	95	85	55	5.2*	
		108	New RQ6E050AT		-30	-2.0	1.25	—	—	190	170	115	3.2*	
		109	New RQ6E035AT	P	-30	-5.0	1.25	—	—	—	30	20	10.0	4.5
		110	☆RQ6E030AT		-30	-3.5	1.25	—	—	—	54	38	5.2	
		111	New RQ6E030AT		-30	-3.0	1.25	—	—	—	116	76	2.5	
		112	New RQ6P015SP	N	-100	-1.5	1.25	—	—	400	380	350	17.0*	4

* :V_{GS}=5V

☆:Under development

MOSFETs

Small Size Power Type MOSFET Series 3														
Package	Application	No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (T _a =25°C)	R _{DS(on)} Typ. (mΩ)					Q _g (nC) (V _{GS} =4.5V)	Drive Voltage (V)
								V _{GS} (V)						
								1.5	2.5	4	4.5	10		
TSMT8 (3028)	 Load switch Switching Motor Drive	112	RQ1C075UN	N	20	7.5	1.5	20	14	—	11.0	—	18.0	1.5
		113	RQ1C065UN		20	6.5	1.5	29	19	—	16.0	—	11.0	
		114	RQ1A070ZP	P	-12	-7.0	1.5	19	11	—	8.0	—	58.0	
		115	RQ1A060ZP		-12	-6.0	1.5	39	22	—	16.0	—	34.0	
		116	QS8J13	P+P	-12	-5.5	1.5	29	19	—	15.0	—	60.0	
		117	QS8J12		-12	-4.5	1.5	49	27	—	21.0	—	40.0	
		118	QS8J11		-12	-3.5	1.5	75	41	—	31.0	—	22.0	
		119	QS8J2		-12	-4.0	1.5	66	36	—	26.0	—	20.0	
		120	RQ1E100XN	N	30	10.0	1.5	—	—	10	9.5	7.5	12.7	4.0
		121	RQ1A070AP	P	-12	-7.0	1.5	24	13	—	10.0	—	80.0	1.5
		122	RQ1E075XN	N	30	7.5	1.5	—	—	19	17.0	12.0	6.8	4.0
		123	QS8J5	P+P	-30	-5.0	1.5	—	—	45	40.0	28.0	10.0	4.0
		124	QS8J4		-30	-4.0	1.5	—	—	60	55.0	40.0	8.4	
		125	QS8K13	N+N	30	6.0	1.5	—	—	28	25.0	20.0	5.5	4.0
		126	QS8K12		30	4.0	1.5	—	—	45	40.0	30.0	3.4	
		127	QS8K11		30	3.5	1.5	—	—	50	45.0	35.0	3.3	
		128	☆QH8KA2		30	5.0	1.5	—	—	—	40.0	25.0	2.0	
		129	☆QH8KA1		30	3.0	1.5	—	—	—	86.0	56.0	1.5	4.5
		130	QS8K21		45	4.0	1.5	—	—	53	48.0	38.0	5.4	
		131	QS8K51		100	2.0	1.5	—	—	260	250.0	240.0	4.7	4.0
		132	QS8K2		30	3.5	1.5	—	55	40	38.0	—	4.6	2.5
		133	☆QH8KA4		30	8.0	1.5	—	17	—	13.0	—	6.2	
		134	RQ1E050RP	P	-30	-5.0	1.5	—	—	36	32.0	22.0	13.0	4.0
		135	RQ1E070RP		-30	-7.0	1.5	—	—	19	17.0	12.0	26.0	
		136	☆RQ7E055AT		-30	-5.5	1.5	—	—	—	30.0	20.0	10.0	
		137	QS8M13	N	30	6.0	1.5	—	—	28	25.0	20.0	5.5	4.0
				P	-30	-5.0	1.5	—	—	45	40.0	28.0	10.0	
		138	QS8M12	N	30	4.0	1.5	—	—	45	40.0	30.0	3.4	
				P	-30	-3.5	1.5	—	—	60	55.0	40.0	8.4	
		139	☆QH8MA4	N	30	9.0	1.5	—	—	—	18.0	12.0	2.0	4.5
				P	-30	-7.5	1.5	—	—	—	30.0	20.0	4.3	
		140	☆QH8MA3	N	30	6.0	1.5	—	—	—	34.2	28.6	2.0	
				P	-30	-5.5	1.5	—	—	—	60.0	40.0	3.7	
		141	QH8MA2	N	30	4.5	1.5	—	—	—	35.0	21.0	4.7	4.0
				P	-30	-3.0	1.5	—	—	—	80.0	55.0	4.3	
		142	QS8M31	N	60	3.0	1.5	—	—	98	93.0	80.0	4.0	
				P	-60	-2.0	1.5	—	—	190	180.0	150.0	7.2	
		143	QS8M51	N	100	2.0	1.5	—	—	260	250.0	240.0	4.6	4.0
				P	-100	-1.5	1.5	—	—	400	380.0	350.0	17.0	

*: V_{GS}=5V

☆: Under development

●Quick Reference for Multiple Schottky Barrier Diodes Small Size Power Type MOSFET Series <Small Size Power Type Package>

	Drive Voltage (V)	V _{DSS} (V)	I _D (A)										Package
			0.7	No.	1	No.	1.3 / 1.4 / 1.5	No.	2	No.	2.4 / 2.5	No.	
Built-in Diode	1.5	12					ES6U1(P)	3					SOT-563T (1616) (WEMT6)
		20					ES6U2(N)	1					SOT-563T (1616) (WEMT6)
										TT8U1(P) TT8U2(P)	13 14		TSST8
										QS5U36(N)	15		SOT-25T (2928) (TSM5)
	1.8	20					QS5U34(N)	16					SOT-25T (2928) (TSM5)
	2.5	20			ES6U42(P)	5							SOT-563T (1616) (WEMT6)
					US5U30(P) US5U38(P)	8 9							TUMT5
							QS5U21(P) QS5U23(P) QS5U26(P) QS5U27(P)	23 25 22 24					SOT-25T (2928) (TSM5)
									QS5U28(P)	21			
							QS6U22(P)	27					SOT-457T (2928) (SC-95) (TSM6)
		30					ES6U41(N)	4					SOT-563T (1616) (WEMT6)
							US5U1(N) US5U3(N)	6 7					TUMT5
							US6U37(N)	12					SOT-363T (2021) (TUMT6)
									QS5U12(N) QS5U13(N) QS5U16(N) QS5U17(N)	19 17 18 20			SOT-25T (2928) (TSM5)
		4					ES6U3(N)	2					SOT-563T (1616) (WEMT6)
							US5U2(N)	10					TUMT5
									QS5U33(P)	26			SOT-25T (2928) (TSM5)
							QS6U24(P)	28					SOT-457T (2928) (SC-95) (TSM6)
		45					US5U35(P)	11					TUMT5

Character "N", "P" in parentheses indicates "N-channel", "P-channel" respectively.

Multiple Schottky Barrier Diodes Small Size Power Type MOSFET Series

Package	Application	No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (Ta=25°C)	R _{DS(on)} Typ. (mΩ)					Q ₉ (nC) (V _{GS} =4.5V)	Drive Voltage (V)
								V _{GS} (V)						
								1.5	2.5	4	4.5	10		
SOT-563T (1616) (WEMT6) 	Load switch Switching	1	ES6U2	N+SBD(0.5A)	20	1.5	0.8	300	170	—	130	—	1.8	1.5
		2	ES6U3	N+SBD(0.5A)	30	1.4	0.8	—	—	270	250	170	1.4 ¹⁾	4.0
		3	ES6U1	P+SBD(0.5A)	-12	-1.3	0.8	530	280	—	190	—	2.4	1.5
		4	ES6U41	N+SBD(0.5A)	30	1.5	0.8	—	240	180	170	—	1.6	2.5
		5	ES6U42	P+SBD(0.5A)	-20	-1.0	0.8	—	570	310	280	—	2.1	
TUMT5 (2021) 		6	US5U1	N+SBD(0.5A)	30	1.5	1.0	—	240	180	170	—	1.6	2.5
		7	US5U3	N+SBD(0.7A)	30	1.5	1.0	—	240	180	170	—	1.6	
		8	US5U30	P+SBD(0.5A)	-20	-1.0	1.0	—	570	310	280	—	2.1	
		9	US5U38	P+SBD(0.7A)	-20	-1.0	1.0	—	570	310	280	—	2.1	4.0
		10	US5U2	N+SBD(0.5A)	30	1.4	1.0	—	—	270	250	170	1.4 ¹⁾	
		11	US5U35	P+SBD(0.1A)	-45	-0.7	1.0	—	—	1000	900	600	1.7	
SOT-363T (2021) (TUMT6) 		12	US6U37	N+SBD(0.7A)	30	1.5	1.0	—	240	180	170	—	1.6	2.5
TSST8 (3019) 		13	TT8U1	P+SBD(1A)	-20	-2.4	1.25	180	105	—	80	—	6.7	1.5
		14	TT8U2		-20	-2.4	1.25	180	105	—	80	—	6.7	
SOT-25T (2928) (TSMT5) 		15	QS5U36	N+SBD(0.7A)	20	2.5	1.25	120	74	—	58	—	3.5	1.8
		16	QS5U34	N+SBD(0.5A)	20	1.5	1.25	220 ⁶⁾	170	—	130	—	1.8	
		17	QS5U13 ²⁾	N+SBD(0.5A)	30	2.0	1.25	—	110	76	71	—	2.8	
		18	QS5U16 ²⁾		30	2.0	1.25	—	110	76	71	—	2.8	
		19	QS5U12 ³⁾		30	2.0	1.25	—	110	76	71	—	2.8	
		20	QS5U17 ³⁾	N+SBD(1A)	30	2.0	1.25	—	110	76	71	—	2.8	2.5
		21	QS5U28	P+SBD(1A)	-20	-2.0	1.25	—	175	97	90	—	4.8	
		22	QS5U26 ⁵⁾	P+SBD(0.5A)	-20	-1.5	1.25	—	260	180	160	—	4.2	
		23	QS5U21 ⁴⁾	P+SBD(1A)	-20	-1.5	1.25	—	260	180	160	—	4.2	
		24	QS5U27 ⁴⁾		-20	-1.5	1.25	—	260	180	160	—	4.2	
		25	QS5U23 ⁵⁾	P+SBD(0.5A)	-20	-1.5	1.25	—	260	180	160	—	4.2	
		26	QS5U33	P+SBD(1A)	-30	-2.0	1.25	—	—	160	145	95	3.4 ¹⁾	4.0
SOT-457T (2928) (SC-95) (TSMT6) 		27	QS6U22	P+SBD(0.7A)	-20	-1.5	1.25	—	310	170	155	—	3.0	2.5
		28	QS6U24	P+SBD(0.7A)	-30	-1.0	1.25	—	—	600	500	300	1.7 ¹⁾	4.0

*1:V_{GS}=5V *2,*3,*4,*5 :Please note that, although the internal circuit configuration may differ between part numbers, the electrical specifications remain the same. *6:V_{GS}=1.8V

Bipolar Transistors (Surface mount type)

Bipolar Transistors (Surface mount type) 1										
Package	SOT-723 (1212) (VMT3)		SOT-416FL (1616) (SC-89) (EMT3F)		SOT-416 (1616) (SC-75A) (EMT3)		V _{CEO} (V)	I _C (A)	h _{FE} ^{*2}	Automotive Grade Available
	 ^{*1} P _D =0.15W	 ^{*1} P _D =0.15W	 ^{*1} P _D =0.15W							
Application	PNP	NPN	PNP	NPN	PNP	NPN				
General Purpose Amplification	2SAR522M	2SCR522M	2SAR522EB	2SCR522EB	—	—	20	0.2	120 to 560	—
	2SAR523M	2SCR523M	2SAR523EB	2SCR523EB	—	—	50	0.1	120 to 560	—
	2SA2029	2SC5658	2SA1774EB	2SC4617EB	2SA1774	2SC4617	50	0.15	120 to 390	Yes
Low V _{CE} (sat)	2SA2030	2SC5663	—	—	2SA2018	2SC5585	12	0.5	270 to 680	—
	—	2SD2696	—	—	—	—	30	0.4	270 to 680	—
Driver	—	—	2SAR502EB	2SCR502EB	—	—	30	0.5	200 or more	—
High h _{FE} muting	—	2SD2707	—	—	—	2SD2654	50	0.15	820 to 2700	—
High Frequency	—	2SC5659	—	—	—	2SC4618	25	0.05	82 to 180 (f _T =300MHz)	—
	—	2SC5661	—	—	—	2SC4725	20	0.05	82 to 180 (f _T =1500MHz)	—
	—	2SC5662	—	—	—	2SC4726	11	0.05	56 to 180 (f _T =3200MHz)	—

Notes : 1. *1 With reference land installed 2. *2 For h_{FE} , please see the technical specifications. 3. PNP (-) symbol omitted.

Bipolar Transistors (Surface mount type)<For oversea customer only>									
Application Package Polarity	SOT-323 (2021) (SC-70) (UMT3)		SOT-23 (2924) (SST3)		V _{CEO} (V)	I _C (A)	SOT-323 SC-59 SOT-23	h _{FE} ^{*2}	Automotive Grade Available
	 ^{*1} P _D =0.2W		 ^{*1} P _D =0.2W				P _C (W) (T _a =25°C)		
	PNP	NPN	PNP	NPN					
General Purpose Amplification & Pre Amp	BC858BW	BC848BW	BC858B ^{*3}	BC848B ^{*3}	30	0.1	0.2	200 to 800	Only SOT-23 Yes
	—	—	—	—	45	0.2	0.2	140 to 630	—
	—	—	BC857B ^{*3}	BC847B ^{*3}	45	0.1	0.2	200 to 800	Only SOT-23 Yes
	—	—	—	—	40	0.2	0.2	100 or more	—
Driver	—	—	BCX17 ^{*3}	BCX19 ^{*3}	45	0.5	0.2	100 to 600	Only SOT-23 Yes
	—	—	SSTA56 ^{*3}	SSTA06 ^{*3}	80	0.5	0.2	100 or more	Only SOT-23 Yes
Switching	UMT3906	UMT3904	SST3906	SST3904 ^{*3}	40	0.2	0.2	100 to 300	Only SOT-23 Yes
	—	—	SST4403 ^{*3}	SST4401 ^{*3}	40	0.6	0.2	100 to 300	Only SOT-23 Yes
	—	UMT2222A	—	SST2222A ^{*3}	40	0.6	0.2	100 to 300	Only SOT-23 Yes
	UMT2907A	—	SST2907A ^{*3}	—	60	0.6	0.2	100 to 300	Only SOT-23 Yes
Darlington ^{*4}	—	—	—	—	30 (V _{CES})	0.5	0.2	5k or more	—
	—	—	—	SSTA28 ^{*3}	80 (V _{CES})	0.3	0.2	10k or more	—

Notes: 1. *1 With reference land installed 2. *2 For h_{FE} , please see the technical specifications. 3. *3 SST3 package 4. *4 For internal circuit, please see the technical specifications. 5. PNP (-) symbol omitted.

Bipolar Transistors (Surface mount type)

Bipolar Transistors (Surface mount type) 2										
Package Polarity Application	SOT-323FL (2021) (SC-85) (UMT3F)		SOT-323 (2021) (SC-70) (UMT3)		SC-59 (2928) (SMT3)		V _{CEO} (V)	I _C (A)	h _{FE} *2	Automotive Grade Available
	 *1 P _D =0.2W		 *1 P _D =0.2W		 *1 P _D =0.2W					
	PNP	NPN	PNP	NPN	PNP	NPN				
General Purpose Amplification	2SAR522UB	2SCR522UB	—	—	—	—	20	0.2	120 to 560	—
	2SAR523UB	2SCR523UB	—	—	—	—	50	0.1	120 to 560	—
	2SA1576UB	2SC4081UB	2SA1576A	2SC4081	2SA1037AK	2SC2412K	50	0.15	120 to 390	Yes
	—	—	2SA1579	2SC4102	2SA1514K	2SC3906K	120	0.05	180 to 560	Yes
Low V _{CE(sat)}	—	—	—	—	2SA2119K	—	12	0.5	270 to 680	—
	—	—	—	—	—	2SD1757K	15	0.5	120 to 560	—
	—	—	—	—	2SB1590K	2SD2444K	15	1	120 to 270 180 to 390	—
	—	—	2SB1689	2SD2652	—	—	12	1.5	270 to 680	—
	—	—	—	—	2SB1690K	2SD2653K	12	2	270 to 680	—
	—	—	2SB1694	2SD2656	—	—	30	1	270 to 680	Yes
	—	—	—	—	2SB1695K	2SD2657K	30	1.5	270 to 680	—
	—	—	—	—	—	—	—	—	—	—
Driver	2SAR502UB	2SCR502UB	—	—	—	—	30	0.5	200 to 500	—
	—	—	2SA1577	2SC4097	2SA1036K	2SC2411K	32	0.5	120 to 390	Only SC-59 Yes
	—	—	—	—	2SB1197K	2SD1781K	32	0.8	120 to 390	
	—	—	—	2SD1949	—	2SD1484K	50	0.5	120 to 390	
	—	—	—	—	2SB1198K	2SD1782K	80	0.5	120 to 390	
High speed SW	—	—	2SA2088	2SC5876	—	—	60	0.5	120 to 270 120 to 390	Yes
High h _{FE} Muting	—	—	—	—	—	2SD2704K	25 (V _{EB0})	0.3	820 to 2700	—
	—	—	—	—	—	2SD2114K	20	0.5	820 to 2700	—
	—	—	—	2SD2351	—	2SD2226K	50	0.15	820 to 2700	—
High Voltage	—	—	—	—	—	2SC4061K	300	0.1	56 to 120	—
High Frequency	—	—	—	2SC4098	—	2SC2413K	25	0.05	82 to 180 (f _T =300MHz)	—
	—	—	—	2SC4774	—	2SC4713K	6	0.05	180 to 560 (f _T =800MHz)	—
	—	—	—	2SC4082	—	2SC3837K	20	0.05	82 to 180 (f _T =1500MHz)	—
	—	—	—	2SC4083	—	2SC3838K	11	0.05	56 to 180 (f _T =3200MHz)	—
Darlington *3	—	—	—	—	—	2SD2142K	30	0.3	5k or more	—
	—	—	—	—	2SB852K	2SD1383K	32 (V _{CEs})	0.3	5k or more	—

Notes : 1.*1 With reference land installed 2.*2 For h_{FE} , please see the technical specifications. 3.*3 For internal circuit, please see the technical specifications. 4.PNP (-)symbol omitted.

Bipolar Transistors (Surface mount type) 3												
Package Polarity Application	SOT-323T (2021) (TUMT3)		SOT-363T (2021) (TUMT6)		SOT-346T (2928) (SC-96) (TSMT3)		SOT-457T (2928) (SC-95) (TSMT6)		V _{CE0} (V)	I _C (A)	h _{FE} *2	Automotive Grade Available
	 P _D =0.4W*1		 P _D =0.4W*1		 P _D =0.5W*1		 P _D =0.5W*1					
	PNP	NPN	PNP	NPN	PNP	NPN	PNP	NPN				
Low V _{CE(sat)}	2SB1732	2SD2702	—	—	2SB1709	2SD2674	—	—	12	1.5	270 to 680	—
	2SB1730	2SD2700	—	—	2SB1690	2SD2653	—	—	12	2.0	270 to 680	—
	—	—	US6T4	US6X3	2SB1705	2SD2670	—	—	12	3.0	270 to 680	—
	—	—	—	—	2SB1707	2SD2672	—	—	12	4.0	270 to 680	—
	—	—	—	—	—	—	QST2	QSX1	12	6.0	270 to 680	—
	2SB1733	2SD2703	—	—	2SB1710	2SD2675	—	—	30	1.0	270 to 680	—
	2SB1731	2SD2701	—	—	2SB1695	2SD2657	—	—	30	1.5	270 to 680	—
	—	—	US6T5	US6X4	2SB1706	2SD2671	—	—	30	2.0	270 to 680	—
	—	—	—	—	2SB1708	2SD2673	—	—	30	3.0	270 to 680	—
—	—	—	—	New 2SB1708Q5	—	—	—	30	3.0	270 to 680	—	
—	—	—	—	—	—	QST3	QSX2	30	5.0	270 to 680	—	
Driver	—	—	—	—	2SAR512R	2SCR512R	—	—	30	2.0	200 to 500	—
	—	—	—	—	2SAR513R	2SCR513R	—	—	50	1.0	180 to 450	—
	—	—	—	—	2SAR553R	2SCR553R	—	—	50	2.0	180 to 450	—
	—	—	—	—	2SAR543R	2SCR543R	—	—	50	3.0	180 to 450	—
	—	—	—	—	2SAR514R	2SCR514R	—	—	80	0.7	120 to 390	—
	—	—	—	—	2SAR554R	2SCR554R	—	—	80	1.5	120 to 390	—
	—	—	—	—	2SAR544R	2SCR544R	—	—	80	2.5	120 to 390	—
High speed SW	—	—	—	—	2SA2094	2SC5866	—	—	60	2.0	120 to 270/ 120 to 390	—
—	—	—	—	—	—	New 2SAR340Q	New 2SCR341Q	400	0.1	82 to 270	Yes	

Notes : 1.*1 With reference land installed 2.*2 For h_{FE} , please see the technical specifications. 3.*3 For internal circuit, please see the technical specifications. 4.PNP (-)symbol omitted.

Complex Bipolar Transistors

Complex Bipolar Transistors 1														
Configuration	Package	Item	Application	VT6T6 (1212)	SOT-553/SOT-563 (1616) (SC-107BB) / (SC-107C) (EMT5) / (EMT6)	SOT-353 / SOT-363 (2021) (SC-88A) (SC-88) (UMT5) / (UMT6)	SOT-25/SOT-457 (2928) (SC-74A) / (SC-74) (SMT5) / (SMT6)	SOT-353T / SOT-363T (2021) (TUMT5) / (TUMT6)	SOT-25T / SOT-457T (2928) (SC-95) (TSMT5) / (TSMT6)	Equivalent element transistors	V _{CEO} (V)	I _C (mA)	h _{FE}	Automotive Grade Available
														
	Part No.													
PNP×2	Pre Amp.		—	EMT51	—	—	—	—	2SAR522EBx2	-20	-200	120 to 560	—	
			—	EMT52	—	—	—	—	2SAR523EBx2	-50	-100	120 to 560	—	
			—	EMT1	UMT1N	IMT1A	—	—	2SA1037AKx2	-50	-150	120 or more	Yes	
			—	EMT18	UMT18N	IMT18	—	—	2SA2018x2	-12	-500	270 to 680	—	
			VT6T1	—	—	—	—	—	2SAR522Mx2	-20	-200	120 to 560	—	
			VT6T2	—	—	—	—	—	2SAR523Mx2	-50	-100	120 to 560	—	
	Driver		—	EMT2	UMT2N	IMT2A	—	—	2SA1037AKx2	-50	-150	120 to 560	—	
			—	EMT3	—	IMT3A	—	—	2SA1037AKx2	-50	-150	120 to 560	—	
			—	—	—	IMT4	—	—	2SA1514Kx2	-120	-50	180 or more	Yes	
			—	—	—	—	US6T8	QST8	2SB1709x2	-12	-1.5(A)	270 to 680	—	
			—	—	—	—	US6T9	QST9	2SB1710x2	-30	-1(A)	270 to 680	—	
			Suitable for current mirror circuit		VT6T11	—	—	—	—	—	2SAR522Mx2	-20	-200	120 to 560
VT6T12	—	—	—	—	—	—	2SAR523Mx2	-50	-100	120 to 560	—			
NPN×2	Pre Amp.		—	EMX51	—	—	—	—	2SCR522EBx2	20	200	120 to 560	—	
			—	EMX52	—	—	—	—	2SCR523EBx2	50	100	120 to 560	—	
			—	EMX1	UMX1N	IMX1	—	—	2SC2412Kx2	50	150	120 or more	Yes	
			—	EMX26	—	—	—	—	2SD2654x2	50	150	820 to 2700	—	
			—	EMX18	UMX18N	—	—	—	2SC5585x2	12	500	270 to 680	—	
			—	—	—	IMX25	—	—	2SD2704Kx2	20	300	820 to 2700	—	
	High Frequency		VT6X1	—	—	—	—	—	2SCR522Mx2	20	200	120 to 560	—	
			VT6X2	—	—	—	—	—	2SCR523Mx2	50	100	120 to 560	—	
			—	EMX2	UMX2N	IMX2	—	—	2SC2412Kx2	50	150	120 to 560	—	
			—	EMX3	UMX3N	IMX3	—	—	2SC2412Kx2	50	150	120 to 560	—	
			—	—	—	IMX8	—	—	2SC3906Kx2	120	50	180 or more	Yes	
			—	EMX4	UMX4N	—	—	—	2SC3837Kx2	20	50	56 to 180	—	
Driver		—	EMX5	UMX5N	—	—	—	2SC3838Kx2	11	50	56 to 120	—		
		—	—	—	—	US6X7	QSX7	2SD2674x2	12	1.5(A)	270 to 680	—		
Suitable for current mirror circuit		VT6X11	—	—	—	—	—	—	2SCR522Mx2	20	200	120 to 560	—	
		VT6X12	—	—	—	—	—	—	2SCR523Mx2	50	100	120 to 560	—	
DC-DC Converter		—	—	—	—	—	—	QS5W1	—	30	3(A)	200 to 500	—	
		—	—	—	—	—	—	QS5W2	2SCR533Px2	50	3(A)	180 to 450	—	
PNP + NPN	Amplifier		—	EMY1	UMY1N	FMY1A	—	—	2SA1037AK 2SC2412K	-50 50	-150 150	120 or more 120 or more	—	
	Inverter Driver		—	—	—	FMY4A	—	—	2SA1037AK 2SC2412K	-50 50	-150 150	120 to 560 120 to 560	—	
	Pre Amp.		—	EMZ51	—	—	—	—	2SAR522EB 2SCR522EB	-20 20	-200 200	120 to 560 120 to 560	—	
			—	EMZ52	—	—	—	—	2SCR523EB 2SCR523EB	-50 50	-100 100	120 to 560 120 to 560	—	
			—	EMZ1	UMZ1N	IMZ1A	—	—	2SA1037AK 2SC2412K	-50 50	-150 150	120 or more 120 or more	Yes	
			—	EMZ7	—	—	—	—	2SA2018 2SC5585	-12 12	-500 500	270 to 680 270 to 680	—	
			—	—	—	—	—	—	QS6Z5	2SAR513P 2SCR513P	-50 50	-1(A) 1(A)	180 to 450 180 to 450	—
			—	EMZ2	UMZ2N	IMZ2A	—	—	—	2SA1037AK 2SC2412K	-50 50	-150 150	120 to 560 120 to 560	—
			—	EMZ8	—	—	—	—	—	2SA2018 2SC2412K	-12 50	-500 150	270 to 680 120 to 560	—
			VT6Z1	—	—	—	—	—	—	2SAR522M 2SCR522M	-20 20	-200 200	120 to 560 120 to 560	—
	VT6Z2	—	—	—	—	—	—	—	2SCR523M 2SCR523M	-50 50	-100 100	120 to 560 120 to 560	—	

No.1 Pin is located on the upper right of equivalent circuit diagram for VMT6, EMT5, EMT6, UMT5, UMT6, TUMT5, TUMT6, TSMT5 and TSMT6 packages.
No.1 Pin is located on the lower right of equivalent circuit diagram for SMT5 and SMT6 packages.

Complex Bipolar Transistors

Complex Bipolar Transistors 2													
Configuration	Package		VMT6 (1212)	SOT-553 / SOT-563 (1616) (SC-107BB) / (SC-107C) (EMT5) / (EMT6)	SOT-353 / SOT-363 (2021) (SC-88A) (SC-88) (UMT5) / (UMT6)	SOT-25/SOT-457 (2928) (SC-74A) / (SC-74) (SMT5) / (SMT6)	SOT-353T / SOT-363T (2021) (TUMT5) / (TUMT6)	SOT-25T / SOT-457T (2928) (SC-85) (TSMT5) / (TSMT6)	Equivalent element transistors	V _{CEO} (V)	I _C (mA)	h _{FE}	Automotive Grade Available
													
	Item	Application	Equivalent circuit diagram(TOP View)	Part No.									
PNP + NPN	DC-DC Converter		—	—	—	—	—	QSZ1	2SB1690 2SD2653	-12 12	-2(A) 2(A)	270 to 680 270 to 680	—
			—	—	—	—	—	QSZ2	2SB1695 2SD2657	-30 30	-1.5(A) 1.5(A)	270 to 680 270 to 680	—
			—	—	—	—	—	QS5Y1	—	-30 30	-3(A) 3(A)	200 to 500 200 to 500	—
			—	—	—	—	—	QSZ4	2SB1706 2SD2671	-30 30	-2(A) 2(A)	270 to 680 270 to 680	—
			—	—	—	—	—	QS5Y2	2SAR533P 2SCR533P	-50 50	-3(A) 3(A)	180 to 450 180 to 450	—

No. 1 Pin is located on the upper right of equivalent circuit diagram for VMT6, EMT5, EMT6, UMT5, UMT6, TUMT5, TUMT6, TSMT5 and TSMT6 packages.
 No. 1 Pin is located on the lower right of equivalent circuit diagram for SMT5 and SMT6 packages.

Complex Bipolar Transistors 3										
Configuration	Package	Item	Application	Equivalent circuit diagram (TOP View)	Part No.	Equivalent element transistors	V_{CE0} (V)	I_C (mA)	h_{FE}	Automotive Grade Available
PNP+DTR	Power Manegement									
PNP+Di	DC-DC Converter									
NPN+Di	DC-DC Converter									
NPN+Di	Shunt Regulator									

No. 1 Pin is located on the upper right of equivalent circuit diagram for EMT5, EMT6, UMT5 and UMT6 packages.

Digital Transistors

Digital Transistors																	
Specifications	Item	Part No.		R1 (kΩ)	R2 (kΩ)	Package						V _{CC} (V _{CE0}) (V)	I _o (I _c) (mA)	G _I (h _{FE})	Automotive Grade Available		
		PNP	NPN			SOT-723 (1212) (SC-105AA) (VMT3)	SOT-416FL (1616) (SC-89) (EMT3F)	SOT416 (1616) (SC-75A) (EMT3)	SOT-323F (2021) (SC-85) (UMT3F)	SOT-323 (2021) (SC-70) (UMT3)	SOT-23 <2924> (SST3)					SOT-346 (2928) (SC-59) (SMT3)	
		Type	Type			Pd=150mW				Pd=200mW							
R1=R2 Potential Divider Type	100mA	DTA123ExA	DTC123ExA	2.2	2.2	●	—	●	—	●	●	50	100	20 or more	Yes		
		DTA023Ex	DTC023Ex	2.2	2.2	●	●	—	●	—	—	50	100	20 or more	—		
		DTA143ExA	DTC143ExA	4.7	4.7	●	●	●	●	●	●	50	100	20 or more	Yes		
		DTA043Ex	DTC043Ex	4.7	4.7	●	●	—	●	—	—	50	100	20 or more	—		
		DTA114ExA	DTC114ExA	10	10	●	●	●	●	●	●	50	50	30 or more	Yes		
		DTA014Ex	DTC014Ex	10	10	●	●	—	●	—	—	50	50	30 or more	—		
		DTA124ExA	DTC124ExA	22	22	●	●	●	●	●	●	50	30	56 or more	Yes		
		DTA024Ex	DTC024Ex	22	22	●	●	—	●	—	—	50	30	56 or more	—		
		DTA144ExA	DTC144ExA	47	47	●	●	●	●	●	●	50	30	68 or more	Yes		
		DTA044Ex	DTC044Ex	47	47	●	●	—	●	—	—	50	30	80 or more	—		
	500mA	DTA115ExA	DTC115ExA	100	100	●	●	●	—	●	●	50	20	82 or more	Only SOT-23 Yes		
		DTA015Ex	DTC015Ex	100	100	●	●	—	●	—	—	50	20	80 or more	—		
		DTB543Ex	DTD543Ex	4.7	4.7	●	—	●	—	—	—	12	500	115 or more	—		
		DTB113Ex	DTD113Ex	1	1	—	—	—	—	●	●	50	500	33 or more	—		
R1 + R2 Leak Absorption Type	100mA	DTB123Ex	DTD123Ex	2.2	2.2	—	—	—	—	—	●	●	50	500	39 or more	—	
		DTB143Ex	DTD143Ex	4.7	4.7	—	—	—	—	—	●	●	50	500	47 or more	Only SOT-23 Yes	
		DTB114Ex	DTD114Ex	10	10	—	—	—	—	—	●	●	50	500	56 or more	—	
		DTA113ZxA	DTC113ZxA	1	10	—	—	DTA only	—	●	●	●	50	100	33 or more	Yes	
		DTA013Zx	DTC013Zx	1	10	—	●	—	●	—	—	—	50	100	30 or more	—	
		DTA123YxA	DTC123YxA	2.2	10	—	—	●	—	●	●	●	50	100	33 or more	Yes	
		DTA023Yx	DTC023Yx	2.2	10	●	●	—	●	—	—	—	50	100	33 or more	—	
		DTA123JxA	DTC123JxA	2.2	47	●	●	●	●	●	●	●	50	100	80 or more	Yes	
		DTA023Jx	DTC023Jx	2.2	47	●	●	—	●	—	—	—	50	100	80 or more	—	
		DTA143XxA	DTC143XxA	4.7	10	●	●	●	●	●	●	●	50	100	30 or more	Yes	
		DTA043Xx	DTC043Xx	4.7	10	●	●	—	—	—	—	—	50	100	35 or more	—	
		DTA143ZxA	DTC143ZxA	4.7	47	●	●	●	●	●	●	●	50	100	80 or more	Yes	
		DTA043Zx	DTC043Zx	4.7	47	●	●	—	●	—	—	—	50	100	80 or more	—	
	500mA	DTA114WxA	DTC114WxA	10	4.7	—	—	●	—	●	●	●	50	100	24 or more	—	
		DTA114YxA	DTC114YxA	10	47	●	●	●	—	●	●	●	50	70	68 or more	Yes	
		DTA014Yx	DTC014Yx	10	47	●	●	—	●	—	—	—	50	70	68 or more	—	
		DTA124XxA	DTC124XxA	22	47	●	—	●	—	●	●	●	50	50	68 or more	Yes	
		DTA024Xx	DTC024Xx	22	47	●	●	—	●	—	—	—	50	50	80 or more	—	
		DTA144VxA	DTC144VxA	47	10	—	—	—	—	DTC only	—	●	50	100	33 or more	—	
		DTA144WxA	DTC144WxA	47	22	—	—	●	—	●	—	●	50	30	56 or more	—	
		DTB513Zx	DTD513Zx	1	10	●	—	—	—	—	—	—	12	500	140 or more	—	
		DTB523Yx	DTD523Yx	2.2	10	●	—	●	—	—	—	—	12	500	140 or more	—	
		DTB543Xx	DTD543Xx	4.7	10	●	—	●	—	—	—	—	12	500	140 or more	—	
		DTB543Zx	DTD543Zx	4.7	47	●	—	—	—	—	—	—	12	500	140 or more	—	
		DTB113Zx	DTD113Zx	1	10	—	—	—	—	DTD only	●	●	50	500	56 or more	—	
		DTB123Yx	DTD123Yx	2.2	10	—	—	—	—	DTB only	●	●	50	500	56 or more	Only SOT-23 Yes	
Type using R1 alone as input Resistor	100mA	DTA113TKA	—	1	None	—	—	—	—	—	—	●	50	100	100 to 600	—	
		—	DTC123TKA	2.2	None	—	—	—	—	—	—	—	●	50	100	100 to 600	—
		DTA143TxA	DTC143TxA	4.7	None	●	●	●	●	●	●	●	50	100	100 to 600	Yes	
		DTA043Tx	DTC043Tx	4.7	None	●	●	—	●	—	—	—	50	100	100 to 600	—	
		DTA114TxA	DTC114TxA	10	None	●	●	●	●	●	●	●	50	100	100 to 600	Yes	
		DTA014Tx	DTC014Tx	10	None	●	●	—	●	—	—	—	50	100	100 to 600	—	
		DTA124TxA	DTC124TxA	22	None	●	—	●	—	●	—	●	50	100	100 to 600	Yes	
		DTA144TxA	DTC144TxA	47	None	●	—	●	—	●	—	●	50	100	100 to 600	Yes	
		DTA044Tx	DTC044Tx	47	None	●	●	—	●	—	—	—	50	60	100 to 600	—	
		DTA115TxA	DTC115TxA	100	None	●	—	●	—	●	—	●	50	100	100 to 600	—	
	500mA	DTA015Tx	DTC015Tx	100	None	●	—	—	●	—	—	—	50	100	100 to 600	—	
		DTA125TxA	DTC125TxA	200	None	—	—	—	—	●	—	●	50	100	100 to 600	—	
		DTB123TK	DTD123TK	2.2	None	—	—	—	—	—	—	●	40	500	100 to 600	—	
		DTB143TK	DTD143TK	4.7	None	—	—	—	—	—	●	●	40	500	100 to 600	—	
For muting	DTB114TK	—	10	None	—	—	—	—	—	—	●	40	500	100 to 600	—		
	—	DTC614Tx	10	None	—	—	—	—	●	—	●	20	600	820 to 2700	—		
	—	DTC623Tx	2.2	None	—	—	—	—	●	—	●	20	600	820 to 2700	—		
	—	DTC643Tx	4.7	None	—	—	—	—	●	—	●	20	600	820 to 2700	—		
	—	DTC923TUB	2.2	None	—	—	—	●	—	—	—	40 (V _{ES0})	400	820 to 2700	—		
	—	DTC943TUB	4.7	None	—	—	—	●	—	—	—	40 (V _{ES0})	400	820 to 2700	—		
Type using R2 alone as Bleeder Resistor	100mA	—	DTC914TUB	10	None	—	—	—	●	—	—	40 (V _{ES0})	400	820 to 2700	—		
		DTA114GxA	DTC114GxA	None	10	—	—	—	—	●	●	●	50	100	30 or more	Except SOT-346 Yes	
		DTA124GxA	DTC124GxA	None	22	—	—	—	—	DTC only	—	●	50	100	68 or more	Only SOT-323 Yes	
		DTA144GxA	DTC144GxA	None	47	—	—	DTC only	—	●	—	●	50	100	68 or more	Only SOT-323 Yes	
	500mA	DTA115GxA	DTC115GxA	None	100	—	—	—	—	●	—	●	50	100	68 or more	—	
DTB114GK	DTD114GK	None	10	—	—	—	—	—	—	—	—	500	56 or more	—			
x : Packaging designation symbol						M	EB	E	UB	U	C	K					

Complex Digital Transistors

Complex Digital Transistors 1										
Configuration	Equivalent circuit diagram (TOP View)	SOT-553 / SOT-563 (1616) (SC-107BB) / (SC-107C) (EMT5) / (EMT6)	SOT-353 / SOT-363 (2021) (SC-88A) / (SC-88) (UMT5) / (UMT6)	SOT-25/SOT-457 (2928) (SC-74A) / (SC-74) (SMT5) / (SMT6)	SOT-353T / SOT-363T (2021) (TUMT5) / (TUMT6)	SOT-457T (2928) (SC-95) (TSMT6)	Equivalent element transistors	R1 (kΩ)	R2 (kΩ)	Automotive Grade Available
		Part No.								
PNP x2 (100mA)		EMA5	UMA5N	FMA5A	—	—	DTA123Jx2	2.2	47.0	—
		—	UMA9N	FMA9A	—	—	DTA114Ex2	10.0	10.0	—
		—	UMA1N	FMA1A	—	—	DTA124Ex2	22.0	22.0	—
		EMA2	UMA2N	FMA2A	—	—	DTA144Ex2	47.0	47.0	—
		EMA3	UMA3N	FMA3A	—	—	DTA143Tx2	4.7	—	—
		EMA4	UMA4N	FMA4A	—	—	DTA114Tx2	10.0	—	—
		EMB10	UMB10N	IMB10A	—	—	DTA123Jx2	2.2	47.0	Yes
		EMB60	—	—	—	—	DTA023Jx2	2.2	47.0	—
		EMB75	—	—	—	—	DTA043Zx2	4.7	47.0	—
		EMB59	—	—	—	—	DTA014Yx2	10.0	47.0	—
		EMB11	UMB11N	IMB11A	—	—	DTA114Ex2	10.0	10.0	Yes
		EMB61	—	—	—	—	DTA014Ex2	10.0	10.0	—
		EMB51	—	—	—	—	DTA024Ex2	22.0	22.0	—
		EMB2	UMB2N	IMB2A	—	—	DTA144Ex2	47.0	47.0	Yes
	EMB52	—	—	—	—	DTA044Ex2	47.0	47.0	—	
		EMB6	UMB6N	—	—	—	DTA144Ex2	47.0	47.0	—
		EMB3	UMB3N	IMB3A	—	—	DTA143Tx2	4.7	—	Yes
		EMB53	—	—	—	—	DTA043Tx2	4.7	—	—
		EMB4	UMB4N	—	—	—	DTA114Tx2	10.0	—	Yes
NPN x2 (100mA)		EMG11	UMG11N	—	—	—	DTC123Jx2	2.2	47.0	—
		EMG8	UMG8N	—	—	—	DTC143Zx2	4.7	47.0	—
		EMG9	UMG9N	FMG9A	—	—	DTC114Ex2	10.0	10.0	—
		EMG5	UMG5N	—	—	—	DTC114Yx2	10.0	47.0	—
		EMG1	UMG1N	FMG1A	—	—	DTC124Ex2	22.0	22.0	—
		EMG2	UMG2N	FMG2A	—	—	DTC144Ex2	47.0	47.0	—
		EMG3	UMG3N	FMG3A	—	—	DTC143Tx2	4.7	—	—
		EMG4	UMG4N	FMG4A	—	—	DTC114Tx2	10.0	—	—
		EMG6	UMG6N	FMG6A	—	—	DTC144Tx2	47.0	—	—
		EMH10	UMH10N	—	—	—	DTC123Jx2	2.2	47.0	Yes
		EMH60	—	—	—	—	DTC023Jx2	2.2	47.0	—
		EMH25	—	—	—	—	DTC143Zx2	4.7	47.0	Yes
		EMH75	—	—	—	—	DTC043Zx2	4.7	47.0	—
		EMH11	UMH11N	IMH11A	—	—	DTC114Ex2	10.0	10.0	Yes
		EMH61	—	—	—	—	DTC014Ex2	10.0	10.0	—
		EMH9	UMH9N	IMH9A	—	—	DTC114Yx2	10.0	47.0	Yes
		EMH59	—	—	—	—	DTC014Yx2	10.0	47.0	—
		EMH1	UMH1N	IMH1A	—	—	DTC124Ex2	22.0	22.0	Yes
		EMH51	—	—	—	—	DTC024Ex2	22.0	22.0	—
		EMH2	UMH2N	IMH2A	—	—	DTC144Ex2	47.0	47.0	Yes
		EMH52	—	—	—	—	DTC044Ex2	47.0	47.0	—
		—	UMH5N	IMH5A	—	—	DTC124Ex2	22.0	22.0	—
		EMH6	UMH6N	IMH6A	—	—	DTC144Ex2	47.0	47.0	—
		EMH3	UMH3N	IMH3A	—	—	DTC143Tx2	4.7	—	Yes
		EMH53	—	—	—	—	DTC043Tx2	4.7	—	—
		EMH4	UMH4N	IMH4A	—	—	DTC114Tx2	10.0	—	Yes
		EMH15	—	IMH15A	—	—	DTC144Tx2	47.0	—	Yes
		—	UMH8N	IMH8A	—	—	DTC114Tx2	10.0	—	—
		—	UMH14N	IMH14A	—	—	DTC144Tx2	47.0	—	—
NPN x2 muting		—	UMH33N	—	—	—	DTC923TUBx2	2.2	—	—
		—	—	IMH23	US6H23	—	DTC643Tx2	4.7	—	—
		—	UMH32N	—	—	—	DTC943TUBx2	4.7	—	—
		—	—	IMH21	—	—	DTC614Tx2	10.0	—	—
		—	UMH37N	—	—	—	DTC914TUBx2	10.0	—	—
NPN x2 Driver		—	—	—	—	QSH29	60±10V/500mA×2	—	10.0	—

Complex Digital Transistors 2								
Configuration	Equivalent circuit diagram diagram (TOP View)	SOT-553 / SOT-563 (1616) (SC-107BB) (SC-107C) (EMT5) / (EMT6)	SOT-353 / SOT-363 (2021) (SC-88A) (SC-88) (UMT5) / (UMT6)	SOT-25 / SOT-457 (2928) (SC-74A) (SC-74) (SMT5) / (SMT6)	Equivalent element transistors	R1 (kΩ)	R2 (kΩ)	Automotive Grade Available
								
		Part No.						
PNP+NPN (100mA) complimentary		EMD22	UMD22N	—	DTA143Z DTC143Z	4.7 4.7	47 47	Yes
		EMD72	—	—	DTA043Z DTC043Z	4.7 4.7	47 47	—
		EMD3	UMD3N	IMD3A	DTA114E DTC114E	10.0 10.0	10 10	Yes
		EMD53	—	—	DTA014E DTC014E	10.0 10.0	10 10	—
		EMD9	UMD9N	IMD9A	DTA114Y DTC114Y	10.0 10.0	47 47	Yes
		EMD59	—	—	DTA014Y DTC014Y	10.0 10.0	47 47	—
		EMD2	UMD2N	IMD2A	DTA124E DTC124E	22.0 22.0	22 22	Yes
		EMD52	—	—	DTA024E DTC024E	22.0 22.0	22 22	—
		EMD12	UMD12N	—	DTA144E DTC144E	47.0 47.0	47 47	Yes
		EMD62	—	—	DTA044E DTC044E	47.0 47.0	47 47	—
		EMD6	UMD6N	IMD6A	DTA143T DTC143T	4.7 4.7	— —	Yes
PNP+NPN (100mA) different type		EMD38	—	—	DTA113Z DTC114Y	1.0 10.0	10 47	—
		EMD5	UMD5N	—	DTA143X DTC144E	4.7 47.0	10 47	—
		EMD4	UMD4N	—	DTA114Y DTC144E	10.0 47.0	47 47	—
PNP+NPN Power management		EMD29	—	—	DTB513Z DTC114E	1.0 10.0	10 10	—
		EMD30	—	—	DTB713Z DTC114E	1.0 10.0	10 10	—
		—	—	IMD10A	−50V/−0.5A DTC114T	0.1 10.0	10 —	—
		—	—	IMD16A	−50V/−0.5A DTC115T	2.2 100.0	10 —	—

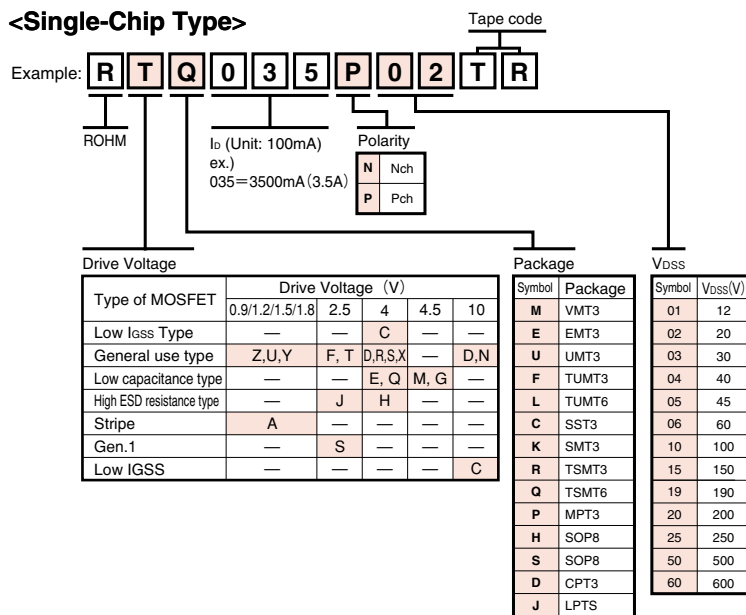
No.1 Pin is located on the upper right of equivalent circuit diagram for EMT5, EMT6, UMT5 and UMT6 packages.

No.1 Pin is located on the lower right of equivalent circuit diagram for SMT5 and SMT6 packages.

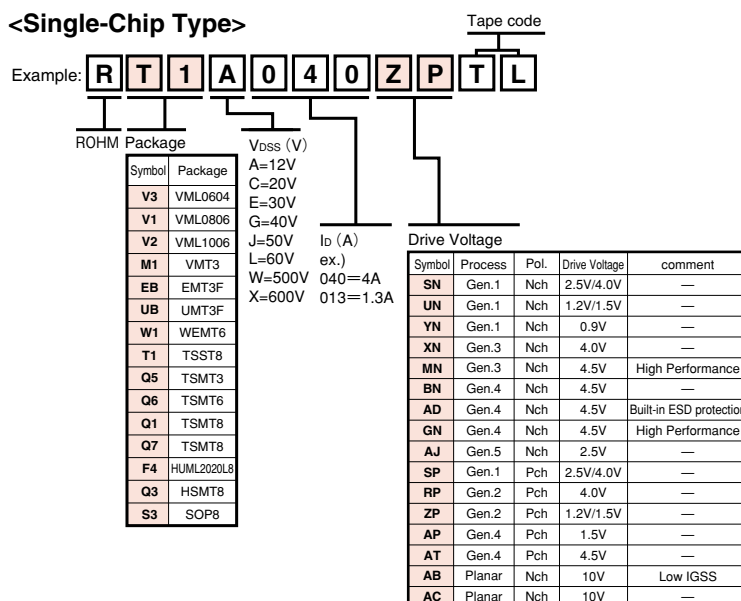
Part No. Explanation

•MOSFET Part No. Explanation

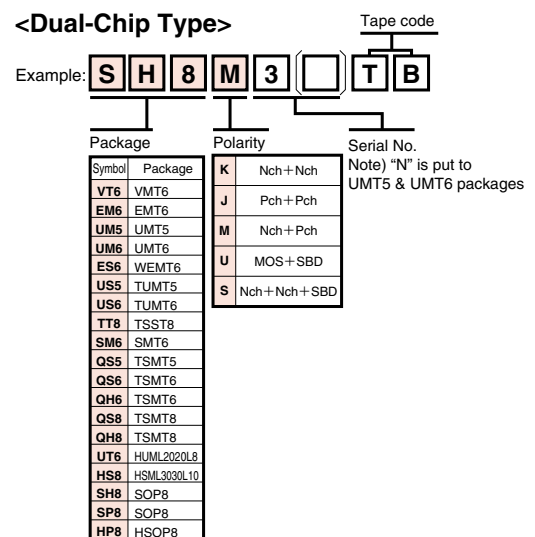
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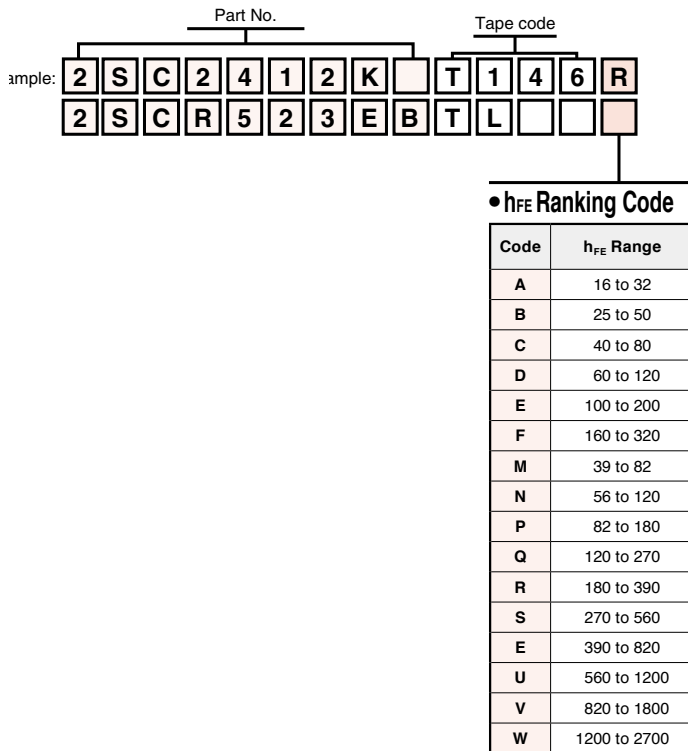
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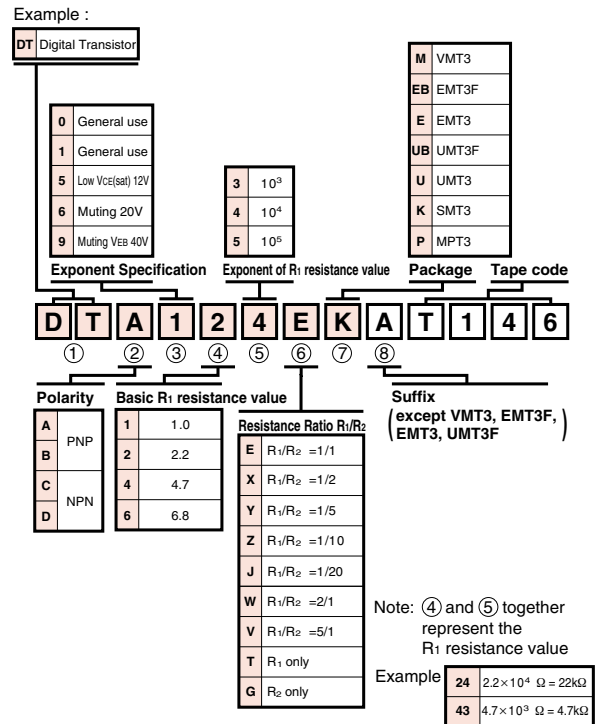
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Bipolar Transistor Part No. Explanation



Digital Transistor Part No. Explanation

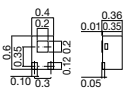
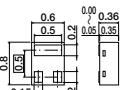
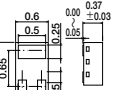
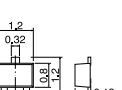
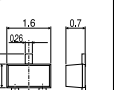
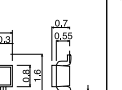
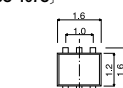
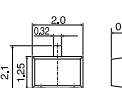
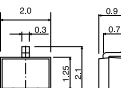
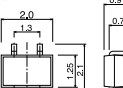
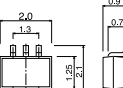
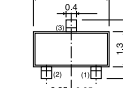
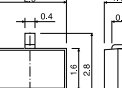
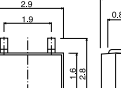
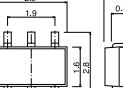
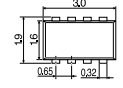
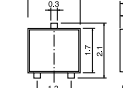
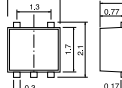
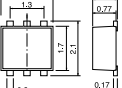
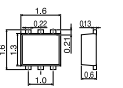
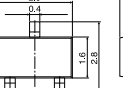
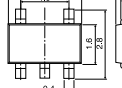
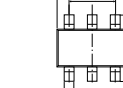
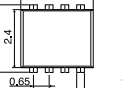


Packaging type

Standard Package Name	Package	Code	Packaging style	Direction	Basic ordering unit (pcs)
DFN-0604	VML0604	T2L,T2CL	Embossed tape	Terminal No.1 on opposite side from sprocket hole side	8,000
DFN-0806	VML0806	T2L,T2CL	Embossed tape	Terminal No.1 on opposite side from sprocket hole side	8,000
DFN-1006	VML1006	T2L,T2CL	Embossed tape	Terminal No.1 on opposite side from sprocket hole side	8,000
SOT-723	VMT3	T2L,T2CL	Embossed tape	One terminal on sprocket hole side	8,000
SOT-723	VMT6	T2R,T2CR	Embossed tape	Terminal No.1 on sprocket hole side	8,000
SOT-416FL	EMT3F	TL,TCL	Embossed tape	One terminal on sprocket hole side	3,000
SOT-416	EMT3	TL,TCL	Embossed tape	One terminal on sprocket hole side	3,000
SOT-553	EMT5	T2R,T2CR	Embossed tape	Three terminals on sprocket hole side	8,000
SOT-563	EMT6	T2R,T2CR	Embossed tape	Terminal No.1 on sprocket hole side	8,000
SOT-323FL	UMT3F	TL,TCL	Embossed tape	One terminal on sprocket hole side	3,000
SOT-323	UMT3	T106,T306	Embossed tape	One terminal on sprocket hole side	3,000
SOT-353	UMT5	TR,TCR	Embossed tape	Three terminals on sprocket hole side	3,000
SOT-363	UMT6	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000
		TN,TCN	Embossed tape	Non-direction	3,000
SOT-23	SST3	T116,T316	Embossed tape	One terminal on sprocket hole side	3,000
SOT-346	SMT3	T146	Embossed tape	One terminal on sprocket hole side	3,000
SOT-25	SMT5	T148	Embossed tape	Three terminals on sprocket hole side	3,000
SOT-457	SMT6	T108	Embossed tape	Terminal No.1 on opposite side from sprocket hole side	3,000
		T110	Embossed tape	Non-direction	3,000
TSST8	TSST8	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000
SOT-323T	TUMT3	TL,TCL	Embossed tape	One terminal on sprocket hole side	3,000
SOT-353T	TUMT5	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000
SOT-363T	TUMT6	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000
SOT-563T	WEMT6	T2R,T2CR	Embossed tape	Terminal No.1 on sprocket hole side	8,000
SOT-346T	TSMT3	TL,TCL	Embossed tape	One terminal on sprocket hole side	3,000
SOT-25T	TSMT5	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000
SOT-457T	TSMT6	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000
TSMT8	TSMT8	TR,TCR	Embossed tape	Terminal No.1 on sprocket hole side	3,000

Packages

●Dimensions (Unit : mm)

VML0604 <DFN0604-3> 	VML0806 <DFN0806-3> 	VML1006 <DFN1006-3> 	VMT6 <SOT-723> [SC-105AA] 	EMT6 <SOT-416FL> [SC-89] 	EMT3 <SOT-416> [SC-75A] 	EMT5 <SOT-553> [SC-107BB] 
EMT6 <SOT-563> [SC-107C] 	UMT3F <SOT-323FL> [SC-85] 		UMT3 <SOT-323> [SC-70] 	UMT5 <SOT-323> [SC-88A] 	UMT6 <SOT-363> [SC-88] 	
SST3 <SOT-23> 	SMT3 <SOT-346> [SC-59] 		SMT5 <SOT-25> [SC-74A] 	SMT6 <SOT-457> [SC-74] 	TSST8 	
TUMT3 <SOT-323T> 	TUMT5 <SOT-353T> 	TUMT6 <SOT-363T> 	WEMT6 <SOT-563T> 	TSMT3 <SOT-346T> [SC-96] 	TSMT5 <SOT-25T> 	
TSMT6 <SOT-457T> [SC-95] 		TSMT8 				

Schottky Barrier Diodes

●Quick Reference for Small Signal Type Schottky Barrier Diodes

V _R (V)	I _O (mA)	Package															
		0603 Size		0603 Size		1006 Size		1006 Size		1006 Size		1406 Size		1608 Size		2512 Size	
		DSN0603-2 (SMD0603)	No.	SOD-962 (GMD2)	No.	DFN1006-2 (VML2)	No.	SOD-923 (VMN2)	No.	SOD-923 (VMN2M)	No.	SOD-723 (VMD2)	No.	SOD-523 (EMD2)	No.	SOD-323FL (UMD2)	No.
20	200													New RBE02SM20A	30		
30	30							RB751CS-40	13	New RB751CM-40	18	RB751G-40	27	RB751SM-40	39	RB751VM-40	55
	100	RASMD New RB521ES-30	1	RB521ZS-30 RB520ZS-30	3 4			RB521CS-30 RB520CS-30	11 12	New RB521CM-30 New RB520CM-30 New RB530CM-30 New RB531CM-30	14 15 16 17	RB521G-30 RB520G-30 New RB530G-30 New RB531G-30	25 26 23 24	New RB510SM-30 New RB511SM-30 New RB500SM-30 New RB501SM-30	31 32 37 38	RB530VM-30 New RB510VM-30 New RB511VM-30 New RB531VM-30	46 47 48 49
	200					RB521AS-30 RB520AS-30 New RB540AS-30 New RB541AS-30	5 6 7 8							RB521SM-30 RB520SM-30 New RB531SM-30 New RB530SM-30	36 35 33 34	New RB520VM-30 New RB521VM-30 New RB540VM-30 New RB541VM-30	50 51 52 53
	500															New RB550VM-30	54
				New RB751ZS-40	2												
40	30																
	100									New RB520CM-40 New RB521CM-40	19 20	New RB520G-40 New RB521G-40	28 29	New RB530SM-40 New RB531SM-40	40 41	RB501VM-40 New RB500VM-40 RB531VM-40 RB530VM-40	58 59 56 57
	200					RB521AS-40 RB520AS-40	10 9							RB521SM-40 RB520SM-40 New RB540SM-40 New RB541SM-40	45 44 42 43	New RB540VM-40 New RB541VM-40 New RB521VM-40 New RB520VM-40	60 61 62 63
60	100									New RB530CM-60 New RB520CM-60	21 22						
V _R (V)	I _O (mA)	Package															
		1608 Size		1212 Size		1616 Size		1616 Size		1616 Size		1616 Size		2120 Size			
		DFN1608-8 (HMD8)	No.	SOT-723 (VMD3)	No.	SOT-416 (EMD3)	No.	SOT-416FL (EMD3F)	No.	SOT-543 (EMD4)	No.	SOT-323 (UMD3)	No.				
30	30	RB521ZS8A30 RB520ZS8A30	64 65														
	100					RB557W RB558W RB548W	73 75 76	New RB558WM	78	RB481Y RB480Y	85 86						
40	30			RB715Z	66	RB715W RB706W-40	67 77										
	100													RB715F RB717F RB706F-40	68 74 79		
	200											RB481Y-40 RB480Y-40	87 88	RB451F RB450F	81 82		
90	100											RB481Y-90 RB480Y-90	89 90				
V _R (V)	I _O (mA)	Package															
		2120 Size		2120 Size		2120 Size		2924 Size		2928 Size		2928 Size		2928 Size			
		SOT-323FL (UMD3F)	No.	SOT-343 (UMD4)	No.	SOT-363 (UMD6)	No.	SOT-23 (SST3)	No.	SOT-346 (SMD3)	No.	SOT-25 (SMD5)	No.	SOT-457 (SMD6)	No.		
25	400									RB495D	70						
30	30													RB731U	98		
	100					RB531XN RB530XN RB541XN	94 95 96										
	200							New BAT54HM New BAT54SHM New BAT54CHM New BAT54AHM	86 82 70 76								
40	30			RB481K	91	RB731XN	97			RB705D RB706D-40	71 80						
	100	New RB715UM	69							RB425D RB421D RB420D	72 83 84	RB471E	93				
	120							New BAS40HM	87								
	200			RB480K	92												

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Schottky Barrier Diodes

Small Signal Type Schottky Barrier Diodes 1												
Quick Reference No.	Product No.	Absolute Maximum Ratings (T _C =25°C)				Electrical Characteristics (T _J =25°C) ²				Package	Equivalent Circuit Diagram	Automotive Grade Available
	Part No.	V _{RM} (V)	V _R (V)	I _O ¹ (mA)	I _{FSM} (A) ² 60Hz, 1φ	V _F (V) Max.	I _F (mA)	I _R (μA) Max.	V _R (V)			
1	RASMD New RB521ES-30	30	30	100	0.5	0.37	10	7	10	DSN0603-2 (SMD0603)		—
2	New RB751ZS-40	40	40	30	0.2	0.37	1	0.5	30	SOD-962 (GMD2)		—
3	RB521ZS-30	30	30	100	0.5	0.37	10	7	10			—
4	RB520ZS-30	30	30	100	0.5	0.46	10	0.3	10			—
5	RB521AS-30	30	30	200	1	0.5	200	30	10	DFN1006-2 (VML2)		—
6	RB520AS-30	30	30	200	1	0.6	200	1	10			—
7	New RB540AS-30	30	30	200	0.5	0.45	10	0.5	10			—
8	New RB541AS-30	30	30	200	0.5	0.35	10	30	10			—
9	RB520AS-40	40	40	200	1	0.55	100	10	40			—
10	RB521AS-40	45	40	200	1	0.45	100	90	40	—		
11	RB521CS-30	—	30	100	0.5	0.35	10	10	10	SOD-923 (VMN2)		—
12	RB520CS-30	—	30	100	0.5	0.45	10	0.5	10			—
13	RB751CS-40	40	30	30	0.2	0.37	1	0.5	30			—
14	New RB521CM-30	—	30	100	0.5	0.35	10	10	10	SOD-923 (VMN2M)		—
15	New RB520CM-30	—	30	100	0.5	0.45	10	0.5	10			—
16	New RB530CM-30	30	30	100	0.5	0.46	10	0.3	10			—
17	New RB531CM-30	30	30	100	0.5	0.37	10	7	10			—
18	New RB751CM-40	40	30	30	0.2	0.37	1	0.5	30			—
19	New RB520CM-40	40	40	100	0.5	0.71	100	1.5	40			—
20	New RB521CM-40	40	40	100	0.5	0.61	100	100	40			—
21	New RB530CM-60	60	60	100	0.5	0.6	15	1	60			—
22	New RB520CM-60	60	60	100	0.5	0.47	15	3	60			—
23	New RB530G-30	30	30	100	0.5	0.46	10	3	10			SOD-723 (VMD2)
24	New RB531G-30	30	30	100	0.5	0.37	10	7	10	Yes		
25	RB521G-30	—	30	100	0.5	0.35	10	10	10	Yes		
26	RB520G-30	—	30	100	0.5	0.45	10	0.5	10	Yes		
27	RB751G-40	40	30	30	0.2	0.37	1	0.5	30	Yes		
28	New RB520G-40	40	40	100	0.5	0.71	100	15	40	Yes		
29	New RB521G-40	40	40	100	0.5	0.61	100	100	40	Yes		
30	New RBE02SM20A	30	20	200	1	0.49	200	80	20	SOD-523 (EMD2)		—
31	New RB510SM-30	30	30	100	0.5	0.46	10	0.3	10			Yes
32	New RB511SM-30	30	30	100	0.5	0.37	10	7	10			Yes
33	New RB531SM-30	30	30	200	1	0.35	10	10	10			Yes
34	New RB530SM-30	30	30	200	1	0.45	10	0.5	10			Yes
35	RB520SM-30	—	30	200	1	0.58	200	1	10			Yes
36	RB521SM-30	—	30	200	1	0.47	200	30	10			Yes
37	New RB500SM-30	30	30	100	0.5	0.45	10	0.5	10			Yes
38	New RB501SM-30	30	30	100	0.5	0.35	10	10	10			Yes
39	RB751SM-40	40	30	30	0.2	0.37	1	0.5	30			Yes
40	New RB530SM-40	40	40	100	0.5	0.71	100	15	40			Yes
41	New RB531SM-40	40	40	100	0.5	0.61	100	100	40			Yes
42	New RB540SM-40	40	40	200	0.5	0.71	100	15	40			Yes
43	New RB541SM-40	40	40	200	0.5	0.61	100	100	40			Yes
44	RB520SM-40	40	40	200	1	0.55	100	10	40			Yes
45	RB521SM-40	45	40	200	1	0.45	100	90	40			Yes
46	RB530VM-30	30	30	100	0.5	0.45	10	0.5	10	SOD-323FL (UMD2)		Yes
47	New RB510VM-30	30	30	100	0.5	0.46	10	0.3	10			Yes
48	New RB511VM-30	30	30	100	0.5	0.37	10	7	10			Yes
49	New RB531VM-30	30	30	100	0.5	0.35	10	10	10			Yes
50	New RB520VM-30	30	30	200	1	0.58	200	1	10			Yes
51	New RB521VM-30	30	30	200	1	0.47	200	30	10			Yes
52	New RB540VM-30	30	30	200	0.5	0.45	10	0.5	10			Yes
53	New RB541VM-30	30	30	200	0.5	0.35	10	30	10			Yes
54	New RB550VM-30	30	30	500	1	0.59	500	30	30			Yes
55	RB751VM-40	40	30	30	0.2	0.37	1	0.5	30			Yes
56	RB531VM-40	40	40	100	1	0.61	100	100	40			Yes
57	RB530VM-40	40	40	100	1	0.71	100	15	40			Yes
58	RB501VM-40	45	40	100	1	0.55	100	30	10			Yes
59	New RB500VM-40	45	40	100	1	0.45	10	1	10			Yes
60	New RB540VM-40	40	40	200	0.5	0.71	100	15	40			Yes
61	New RB541VM-40	40	40	200	0.5	0.61	100	100	40			Yes
62	New RB521VM-40	40	40	200	1	0.54	200	90	40			Yes
63	New RB520VM-40	40	40	200	1	0.55	100	10	40			Yes
64	RB521ZS8A30	30	30	100 ²	0.5	0.37	10	7	10	DFN1608-8 (HMD8)		—
65	RB520ZS8A30	30	30	100 ²	0.5	0.46	10	0.3	10			—

¹ I_O: Average output current per chip. In case of 1, 2 or 3 chip diodes. I_O indicates average output current of 1, 2 or 3 chips.

² Value / Chip

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Small Signal Type Schottky Barrier Diodes 2												
Quick Reference No.	Product No.	Absolute Maximum Ratings (T _c =25°C)				Electrical Characteristics (T _j =25°C) ²				Package	Equivalent Circuit Diagram	Automotive Grade Available
	Part No.	V _{RM} (V)	V _R (V)	I _O ¹ (mA)	I _{FSM} (A) ² 60Hz, 1ms	V _F (V) Max.	I _F (mA)	I _R (μA) Max.	V _{rr} (V)			
66	RB715Z	40	40	30	0.2	0.37	1	1	10	SOT-723 (VMD3)		Yes
67	RB715W	40	40	30	0.2	0.37	1	1	10	SOT-416 (EMD3)		Yes
68	RB715F	40	40	30	0.2	0.37	1	1	10	SOT-323 (UMD3)		Yes
69	New RB715UM	40	40	30	0.2	0.37	1	1	10	SOT-323FL (UMD3F)		Yes
70	New BAT54CHM	30	30	200	1.0	0.8	100	2	25	SOT-23 (SSD3)		Yes
71	RB495D	40	25	400	2	0.5	200	70	25	SOT-346 (SMD3)		Yes
72	RB705D	40	40	30	0.2	0.37	1	1	10			Yes
73	RB425D	40	40	100	1	0.55	100	30	10			Yes
74	RB557W	—	30	100 ²	0.5	0.35	10	10	10	SOT-416 (EMD3)		Yes
75	RB717F	40	40	30 ²	0.2	0.37	1	1	10	SOT-323 (UMD3)		Yes
76	New BAT54AHM	30	30	200	1.0	0.8	100	2	25	SOT-23 (SSD3)		Yes
77	RB558W	—	30	100 ²	0.5	0.35	10	10	10	SOT-416 (EMD3)		Yes
78	RB548W	—	30	100 ²	0.5	0.45	10	0.5	10			Yes
79	RB706W-40	45	40	30	0.2	0.37	1	1	10			Yes
80	New RB558WM	—	30	100 ²	0.5	0.49	100	10	10	SOT-416FL (EMD3F)		Yes
81	RB706F-40	45	40	30 ²	0.2	0.37	1	1	10	SOT-323 (UMD3)		Yes
82	New BAT54SHM	30	30	200	1.0	0.8	100	2	25	SOT-23 (SSD3)		Yes
83	RB706D-40	45	40	30	0.2	0.37	1	1	10	SOT-346 (SMD3)		Yes
84	RB451F	40	40	100	1	0.55	100	30	10	SOT-323 (UMD3)	Yes	
85	RB450F	45	40	100	1	0.45	10	1	10		Yes	
86	New BAT54HM	30	30	200	1.0	0.8	100	2	25	SOT-23 (SSD3)		Yes
87	New BAS40HM	40	40	120	—	1.0	40	1	30	SOT-23 (SSD3)		Yes
88	RB421D	40	40	100	1	0.55	100	30	10	SOT-346 (SMD3)		Yes
89	RB420D	40	40	100	1	0.45	10	1	10			Yes
90	RB481Y	—	30	100 ²	1	0.43	100	30	10	SOT-543 (EMD4)		Yes
91	RB480Y	—	30	100 ²	1	0.53	100	1	10			Yes
92	RB481Y-40	40	40	200	1	0.45	100	90	40			Yes
93	RB480Y-40	40	40	200	1	0.55	100	10	40			Yes
94	RB481Y-90	90	90	100 ²	1	0.61	100	100	90			Yes
95	RB480Y-90	90	90	100 ²	1	0.69	100	5	90			Yes
96	RB481K	30	30	200 ²	1	0.5	200	30	10	SOT-343 (UMD4)		Yes
97	RB480K	45	40	100 ²	1	0.6	100	1	10	SOT-25 (SMD5)		Yes
98	RB471E	40	40	100 ²	1	0.55	100	30	10			Yes
99	RB531XN	—	30	100 ²	1	0.43	100	30	10	SOT-363 (UMD6)		Yes
100	RB530XN	—	30	100 ²	1	0.53	100	1	10			Yes
101	RB541XN	—	30	100	0.5	0.35	10	10	10			Yes
102	RB731XN	40	40	30	0.2	0.37	1	1	10			Yes
103	RB731U	40	40	30	0.2	0.37	1	1	10	SOT-457 (SMD6)		Yes

*1 : I_O : Average output current per chip. In case of 1, 2 or 3 chip diodes. I_O indicates average output current of 1, 2 or 3 chips.

*2 : Value / Chip

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- ▶ Schottky Barrier Diodes
▶ Fast Recovery Diodes

● Quick Reference for Small Sizes Power Type Schottky Barrier Diodes

V _F (V)	I _O (A)	Package											
		1006 Size		1608 Size		1608 Size		2512 Size		2120 Size		2928 Size	
													
		DFN1006-2 (VML2)	No.	SOD-523 (EMD2)	No.	DFN1608-2 (KMD2)	No.	SOD-323FL (UMD2)	No.	SOT-323 (UMD3)	No.	SOT-346 (SMD3)	No.
20	0.5	RBE05AS20A	1	RBE05SM20A	2	RB551SS-30	3	RB551VM-30 RBE05VM20A	7 8			RB411D	183
	0.7							RBE07V20A	9	RB461F	181		
	1					RB161SS-20	4					RB491D	182
30	0.5					RB550SS-30	5						
40	0.5											RB400D	184
	1					RB160SS-40	6						

Schottky Barrier Diodes

Small Size Power Type Schottky Barrier Diodes 1												
Quick Reference No.	Product No.	Absolute Maximum Ratings (T _C =25°C)				Electrical Characteristics (T _J =25°C)				Package	Equivalent Circuit Diagram	Automotive Grade Available
	Part No.	V _{RM} (V)	V _R (V)	I _O (A)	I _{FSM} (A) 60Hz, 1~	V _F (V) Max.	I _F (A)	I _R (mA) Max.	V _R (V)			
1	RBE05AS20A	30	20	0.5	1	0.53	0.5	0.15	20	DFN1006-2 (VML2)		—
2	RBE05SM20A	30	20	0.5	1	0.53	0.5	0.15	20	SOD-523 (EMD2)		—
3	RB551SS-30	30	20	0.5	5	0.47	0.5	0.1	20	DFN1608-2 (KMD2)		—
4	RB161SS-20	30	20	1	5	0.42	1	1	20			—
5	RB550SS-30	30	30	0.5	5	0.59	0.5	0.008	15			—
6	RB160SS-40	40	40	1	5	0.55	0.7	0.05	20			—
7	RB551VM-30	30	20	0.5	2	0.36	0.1	0.1	20	SOD-323FL (UMD2)		—
8	RBE05VM20A	30	20	0.5	2	0.43	0.5	0.2	20			—
9	RBE07V20A	30	20	0.7	1	0.43	0.5	0.2	20			—

Small Size Power Type Schottky Barrier Diodes 2												
Quick Reference No.	Product No.	Absolute Maximum Ratings (T _C =25°C)				Electrical Characteristics (T _J =25°C)				Package	Equivalent Circuit Diagram	Automotive Grade Available
	Part No.	V _{RM} (V)	V _R (V)	I _O (A)	I _{FSM} (A) 60Hz, 1↻	V _F (V) Max.	I _F (A)	I _R (mA) Max.	V _R (V)			
181	RB461F	25	20	0.7	3	0.49	0.7	0.2	20	SOT-323 (UMD3)		—
182	RB491D	25	20	1	3	0.45	1	0.2	20	SOT-346 (SMD3)		—
183	RB411D	40	20	0.5	3	0.5	0.5	0.03	10			Yes
184	RB400D	40	40	0.5	3	0.55	0.5	0.05	30			Yes

Fast Recovery Diodes

● Quick Reference for Fast Recovery Diodes

V _{RM} (V)	I _O (A)	Surface Mount Type					
		1006 Size DFN1006-2 (VML2)	No.	1608 Size SOD-523 (EMD2)	No.	2512 Size SOD-323FL (UMD2)	No.
100	0.5						
200	0.1					RF01VM2S	3
450	0.1	RFU01AS4S	1	RFU01SM4S	2		

Fast Recovery Diodes																
Quick Reference No.	Product No.	Absolute Maximum Ratings (T _C =25°C)				Electrical Characteristics (T _J =25°C)							Package	Equivalent Circuit Diagram	Automotive Grade Available	
	Part No.	V _{RM} (V)	V _R (V)	I _O (A)	I _{FSM} (A) 60Hz,1~	V _F (V) Max.		I _R (μA) Max.		t _{rr} (ns) Max.		I _F (A)				I _R (A)
							I _F (A)		V _R (V)		I _F (A)					
1	RFU01AS4S	450	450	0.1	1	1.8	0.1	10	450	35	0.1	0.1	DFN1006-2 (VML2)		—	
2	RFU01SM4S	450	450	0.1	1	1.8	0.1	10	450	35	0.1	0.1	SOD-523 (EMD2)		Yes	
3	RF01VM2S	250	250	0.1	1	1.2	0.1	10	250	50	*		SOD-323FL (UMD2)		Yes	

*V_{RM}=6V, I_F=10mA, I_{rr}=0.1I_N