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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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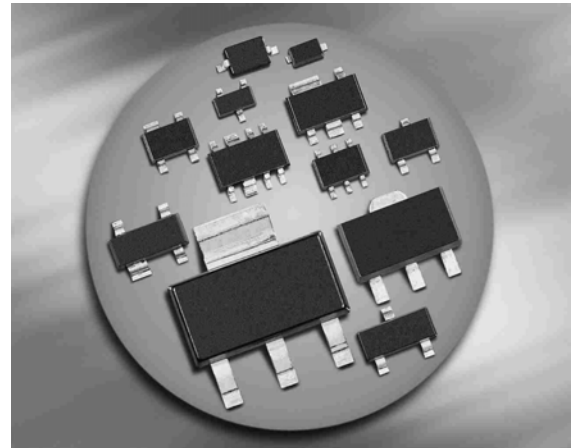
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



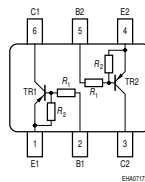
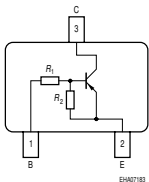
PNP Silicon Digital Transistor

- Switching circuit, inverter, interface circuit, driver circuit
- Built in bias resistor ($R_1 = 22k\Omega$, $R_2 = 47k\Omega$)
- For 6-PIN packages: two (galvanic) internal isolated transistors with good matching in one package



BCR192/F/L3
BCR192T/W

BCR192U



Type	Marking	Pin Configuration						Package
		1=B	2=E	3=C	-	-	-	
BCR192	WPs	1=B	2=E	3=C	-	-	-	SOT23
BCR192F	WPs	1=B	2=E	3=C	-	-	-	TSFP-3
BCR192L3	WP	1=B	2=E	3=C	-	-	-	TSLP-3-4
BCR192T	WPs	1=B	2=E	3=C	-	-	-	SC75
BCR192U	WPs	1=E1	2=B1	3=C2	4=E2	5=B2	6=C1	SC74
BCR192W	WPs	1=B	2=E	3=C	-	-	-	SOT323

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}	50	V
Collector-base voltage	V_{CBO}	50	
Emitter-base voltage	V_{EBO}	50	
Input on voltage	$V_{i(on)}$	30	
Collector current	I_C	100	mA
Total power dissipation- BCR192, $T_S \leq 102^\circ\text{C}$ BCR192F, $T_S \leq 128^\circ\text{C}$ BCR192L3, $T_S \leq 135^\circ\text{C}$ BCR192T, $T_S \leq 109^\circ\text{C}$ BCR192U, $T_S \leq 118^\circ\text{C}$ BCR192W, $T_S \leq 124^\circ\text{C}$	P_{tot}	200 250 250 250 250 250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	150 ... -65	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}		K/W
BCR192		≤ 240	
BCR192F		≤ 90	
BCR192L3		≤ 60	
BCR192T		≤ 165	
BCR192U		≤ 133	
BCR192W		≤ 105	

¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

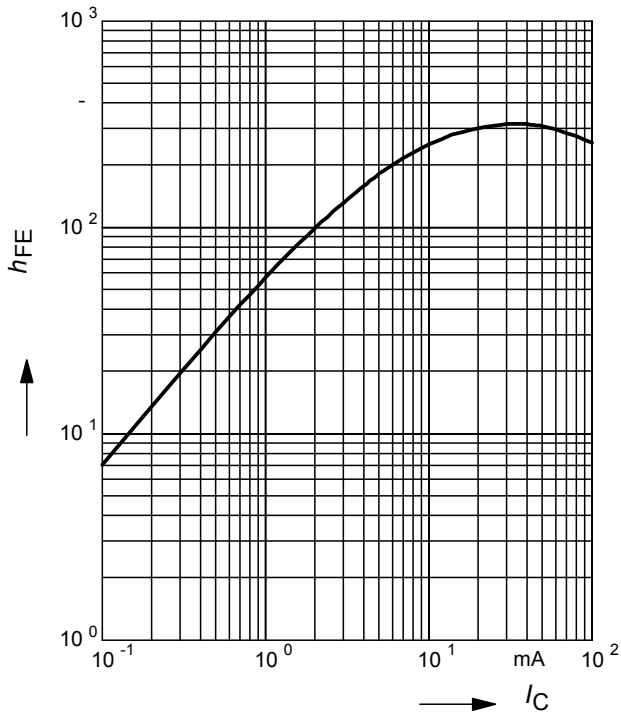
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Collector-emitter breakdown voltage $I_C = 100 \mu\text{A}, I_B = 0$	$V_{(BR)CEO}$	50	-	-	V
Collector-base breakdown voltage $I_C = 10 \mu\text{A}, I_E = 0$	$V_{(BR)CBO}$	50	-	-	
Collector-base cutoff current $V_{CB} = 40 \text{ V}, I_E = 0$	I_{CBO}	-	-	100	nA
Emitter-base cutoff current $V_{EB} = 10 \text{ V}, I_C = 0$	I_{EBO}	-	-	227	μA
DC current gain ¹⁾ $I_C = 5 \text{ mA}, V_{CE} = 5 \text{ V}$	h_{FE}	70	-	-	-
Collector-emitter saturation voltage ¹⁾ $I_C = 10 \text{ mA}, I_B = 0,5 \text{ mA}$	V_{CEsat}	-	-	0,3	V
Input off voltage $I_C = 100 \mu\text{A}, V_{CE} = 5 \text{ V}$	$V_{i(off)}$	0,5	-	1,2	
Input on voltage $I_C = 2 \text{ mA}, V_{CE} = 0,3 \text{ V}$	$V_{i(on)}$	0,8	-	2,5	
Input resistor	R_1	15	22	29	$\text{k}\Omega$
Resistor ratio	R_1/R_2	0,42	0,47	0,52	-
AC Characteristics					
Transition frequency $I_C = 10 \text{ mA}, V_{CE} = 5 \text{ V}, f = 100 \text{ MHz}$	f_T	-	200	-	MHz
Collector-base capacitance $V_{CB} = 10 \text{ V}, f = 1 \text{ MHz}$	C_{cb}	-	3	-	pF

¹Pulse test: $t < 300 \mu\text{s}$; $D < 2\%$

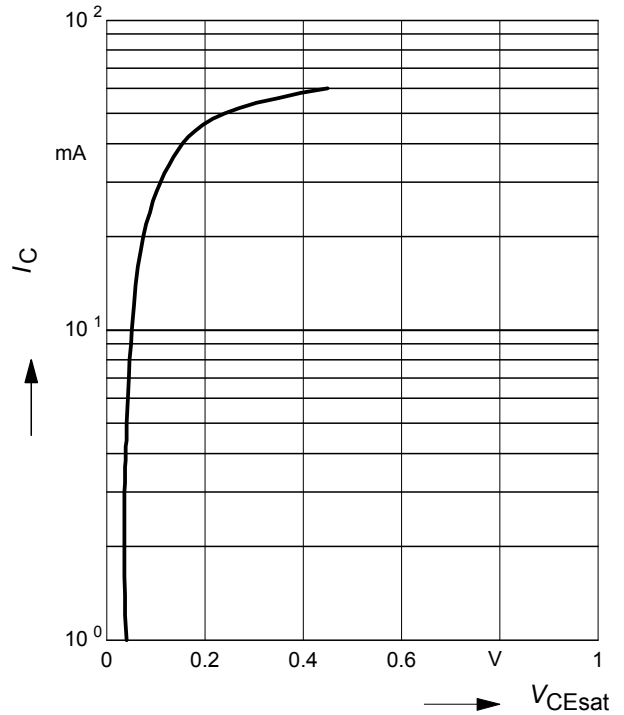
DC current gain $h_{FE} = f(I_C)$

$V_{CE} = 5\text{ V}$ (common emitter configuration)



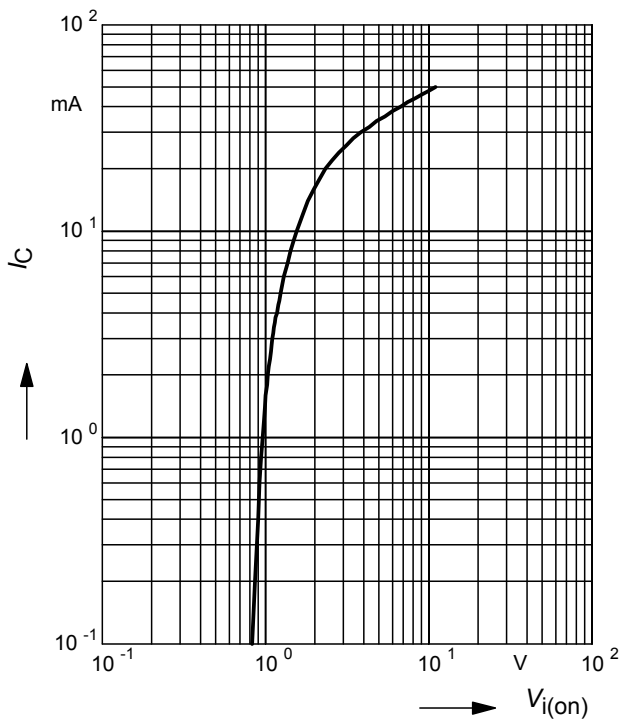
Collector-emitter saturation voltage

$V_{CEsat} = f(I_C), h_{FE} = 20$



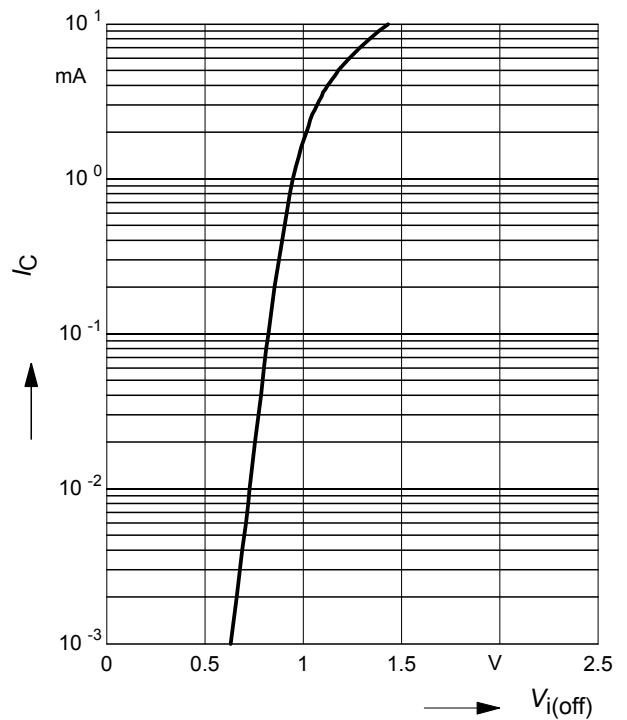
Input on Voltage $V_{i(on)} = f(I_C)$

$V_{CE} = 0.3\text{ V}$ (common emitter configuration)



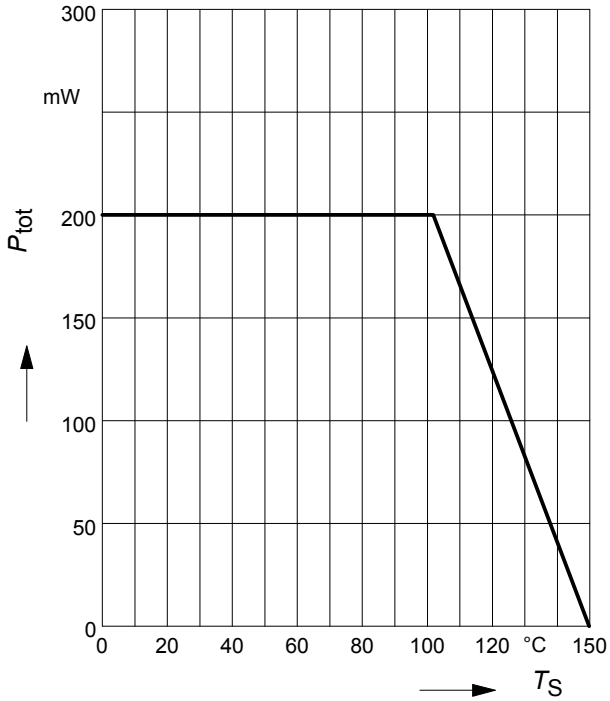
Input off voltage $V_{i(off)} = f(I_C)$

$V_{CE} = 5\text{ V}$ (common emitter configuration)



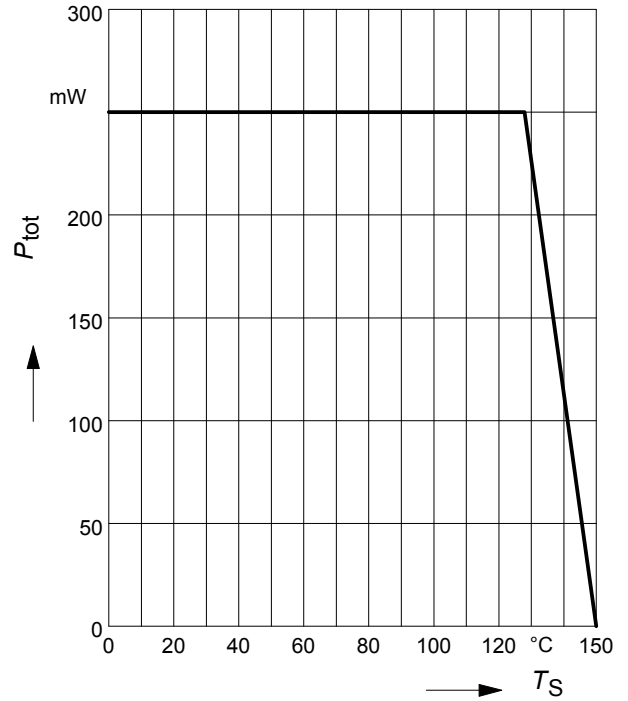
Total power dissipation $P_{tot} = f(T_S)$

BCR192



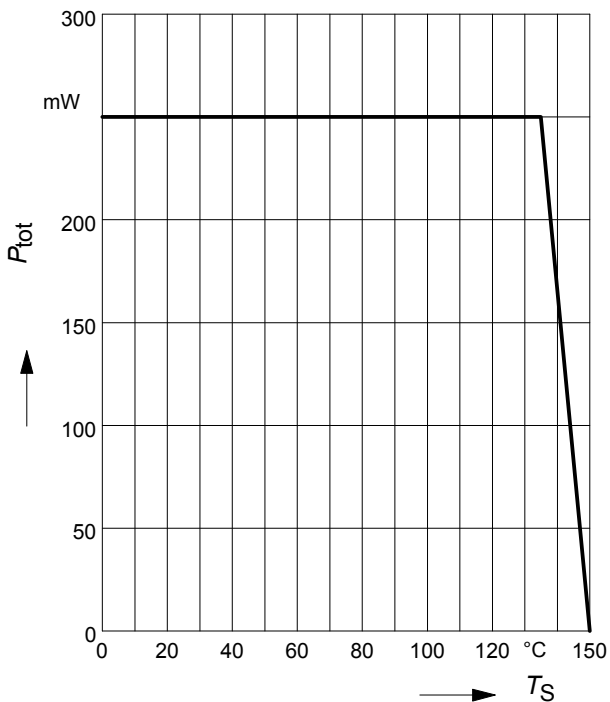
Total power dissipation $P_{tot} = f(T_S)$

BCR192F



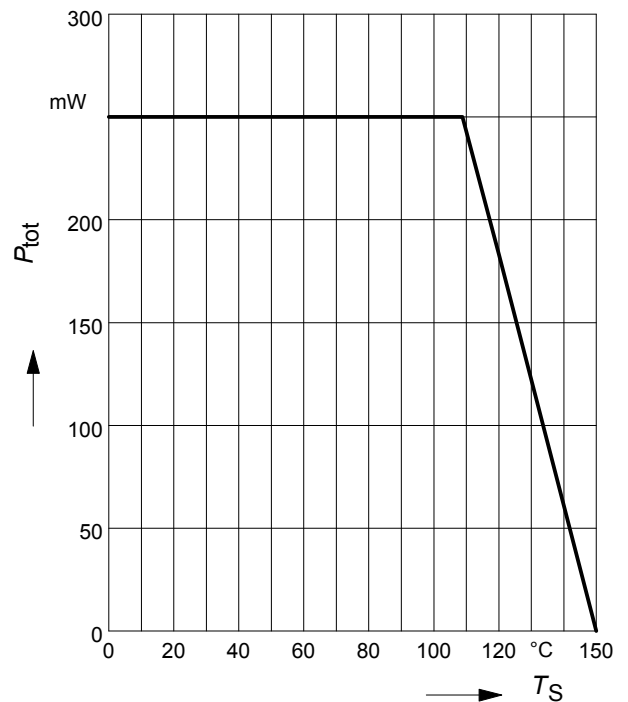
Total power dissipation $P_{tot} = f(T_S)$

BCR192L3



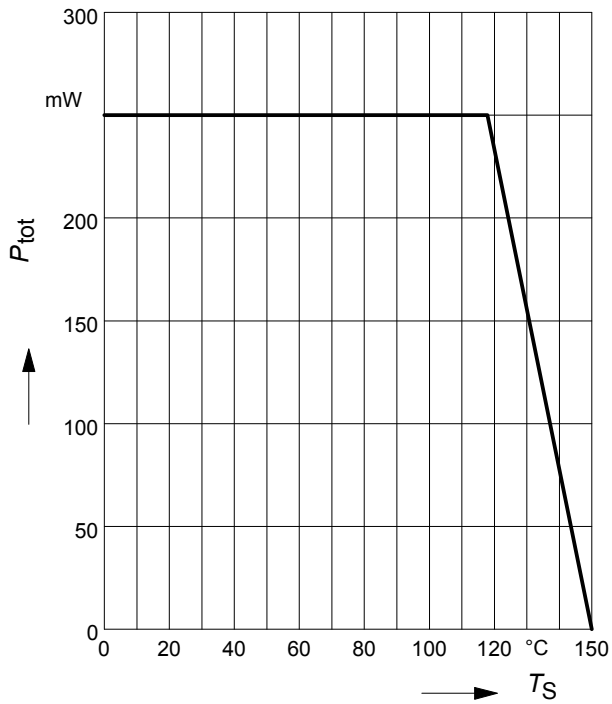
Total power dissipation $P_{tot} = f(T_S)$

BCR192T



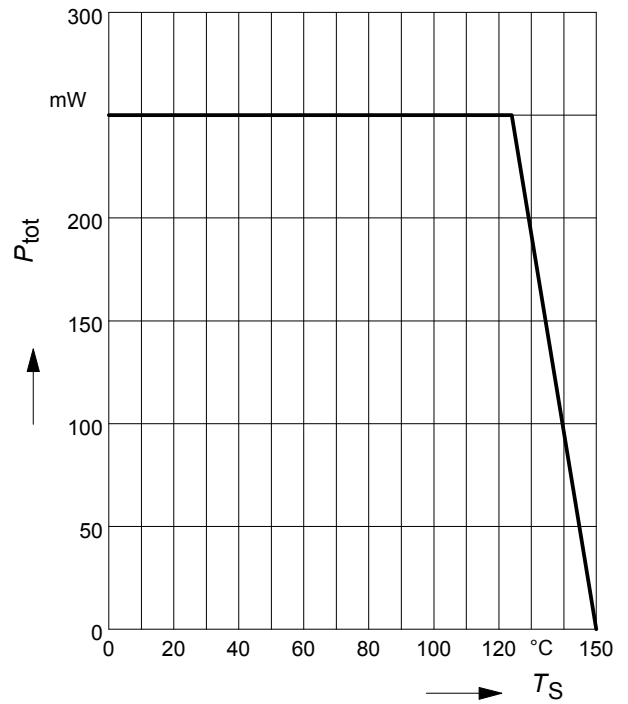
Total power dissipation $P_{tot} = f(T_S)$

BCR192U



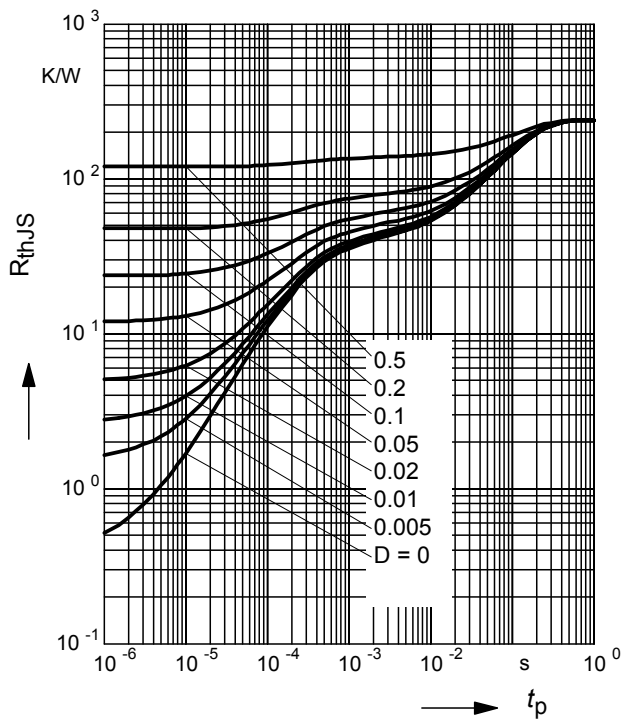
Total power dissipation $P_{tot} = f(T_S)$

BCR192W



Permissible Pulse Load $R_{thJS} = f(t_p)$

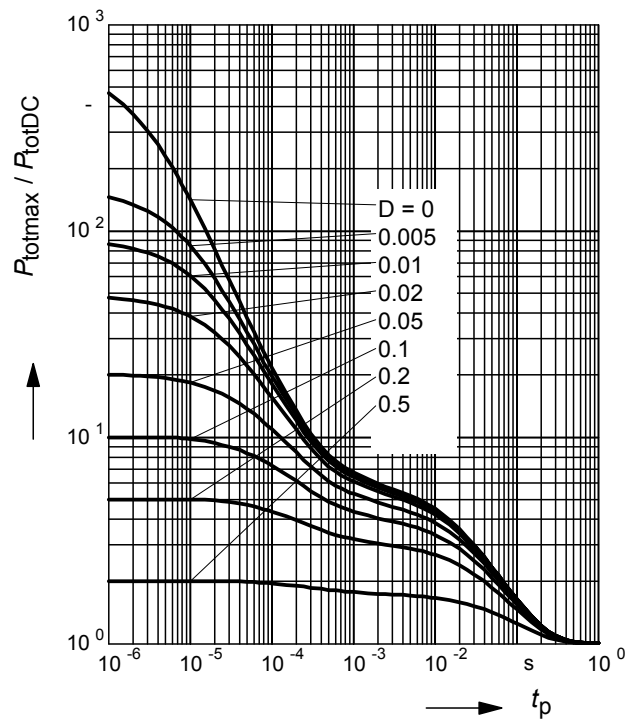
BCR192



Permissible Pulse Load

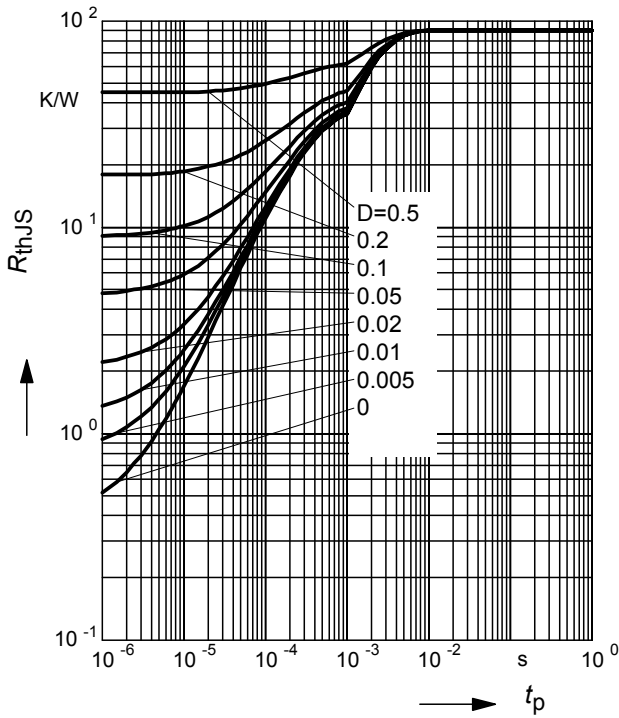
$P_{totmax}/P_{totDC} = f(t_p)$

BCR192



Permissible Puls Load $R_{thJS} = f(t_p)$

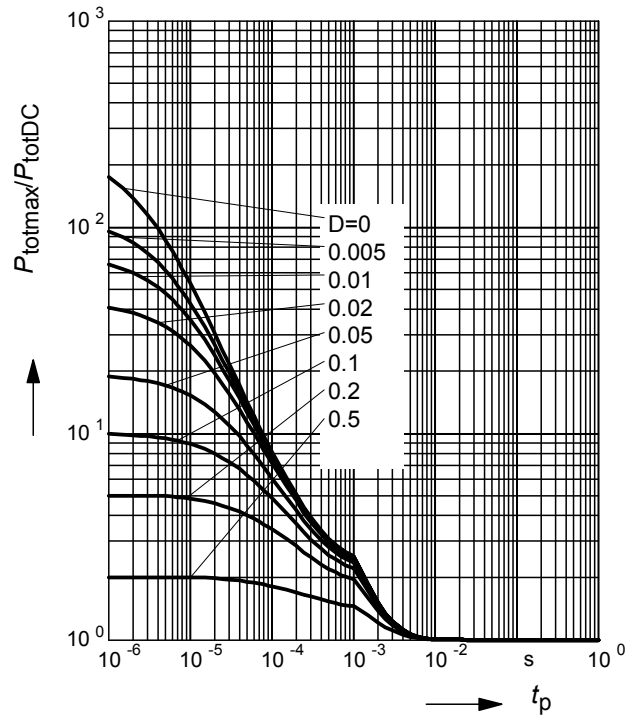
BCR192F



Permissible Pulse Load

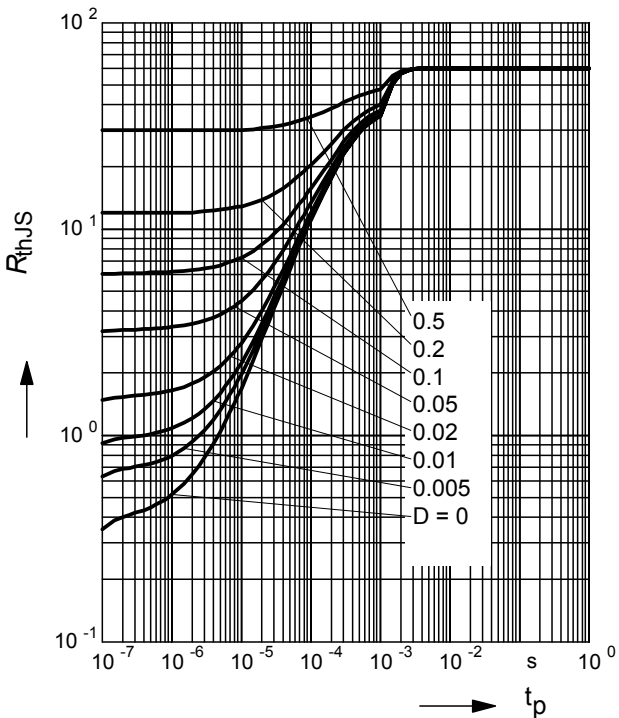
$P_{totmax}/P_{totDC} = f(t_p)$

BCR192F



Permissible Puls Load $R_{thJS} = f(t_p)$

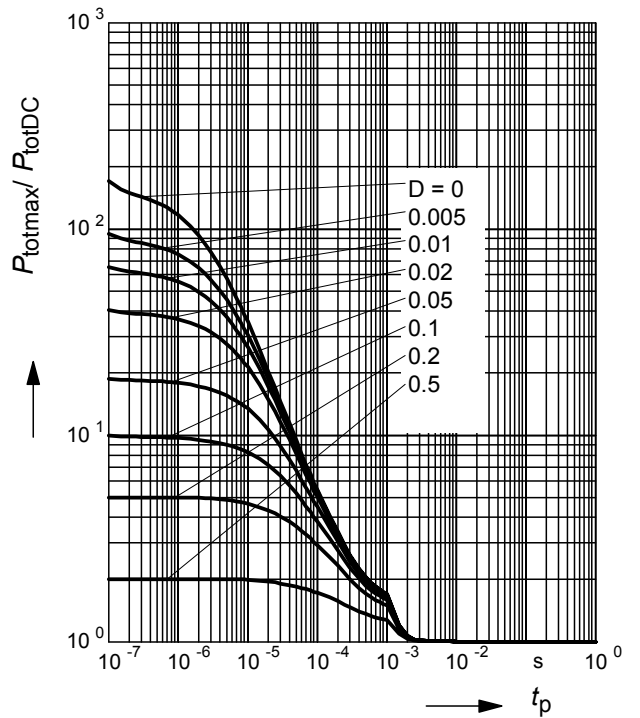
BCR192L3



Permissible Pulse Load

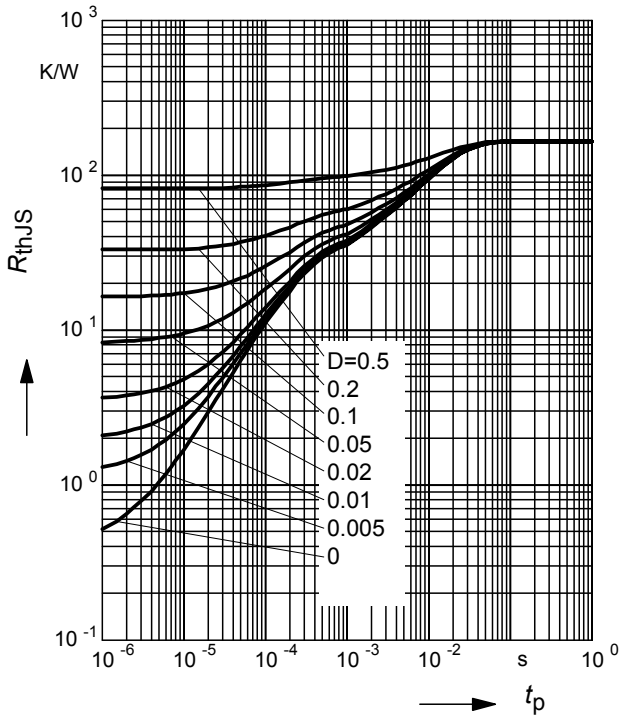
$P_{totmax}/P_{totDC} = f(t_p)$

BCR192L3



Permissible Puls Load $R_{thJS} = f(t_p)$

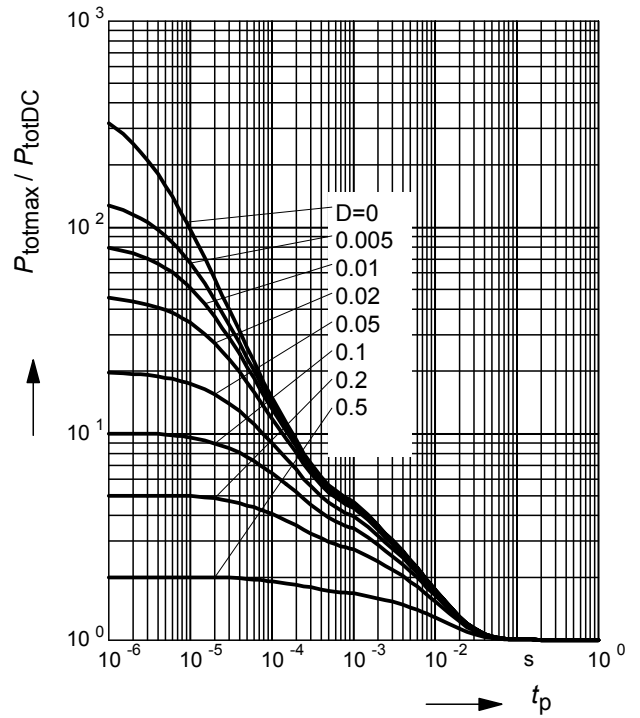
BCR192T



Permissible Pulse Load

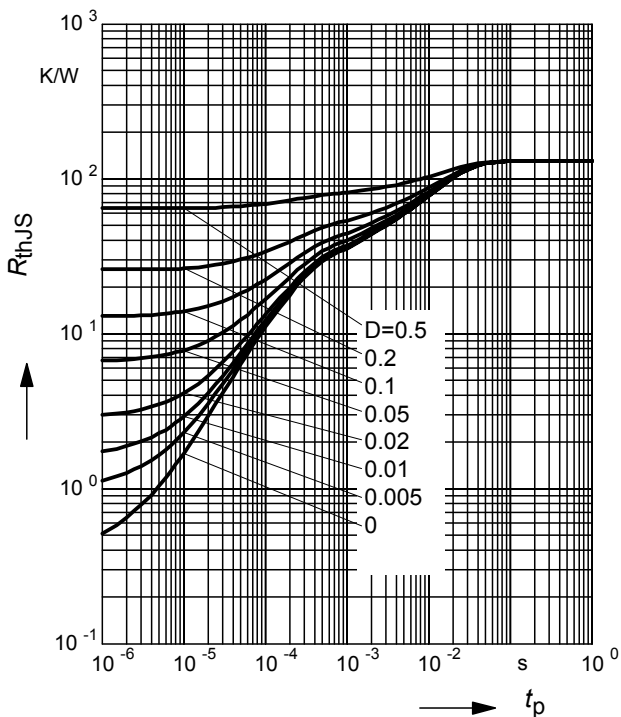
$P_{totmax}/P_{totDC} = f(t_p)$

BCR192T



Permissible Puls Load $R_{thJS} = f(t_p)$

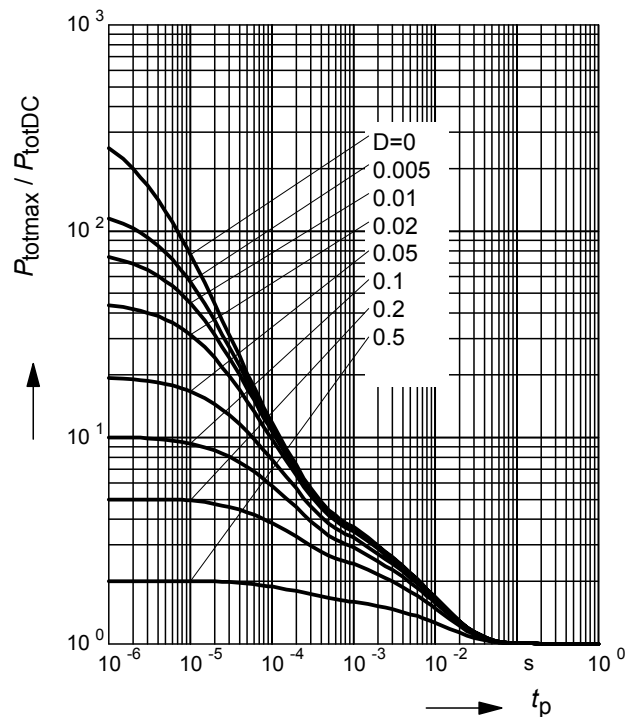
BCR192U



Permissible Pulse Load

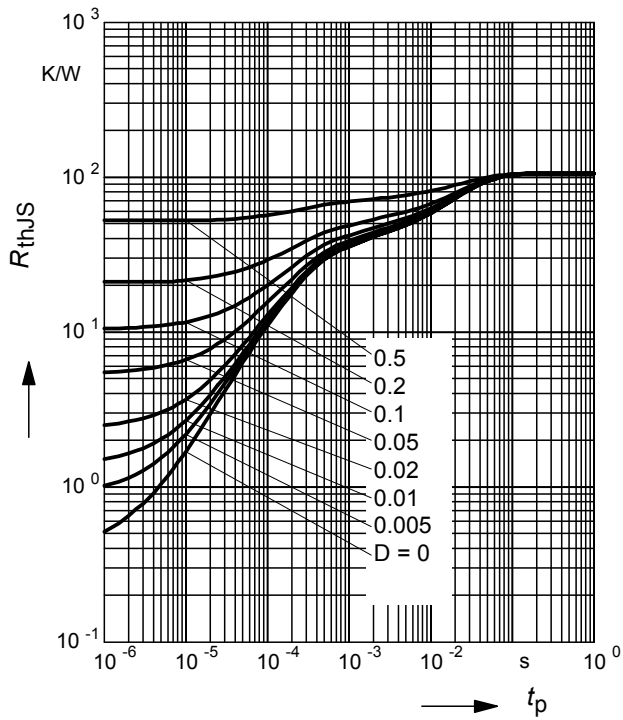
$P_{totmax}/P_{totDC} = f(t_p)$

BCR192U



Permissible Puls Load $R_{thJS} = f(t_p)$

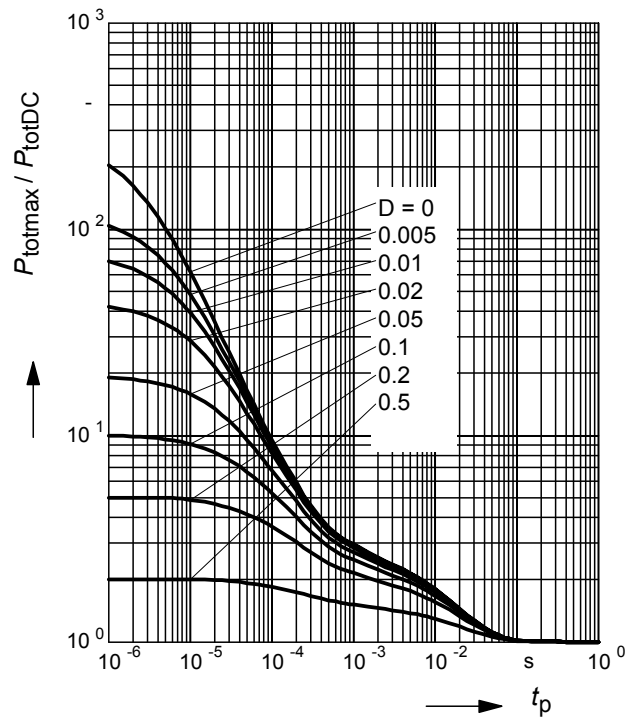
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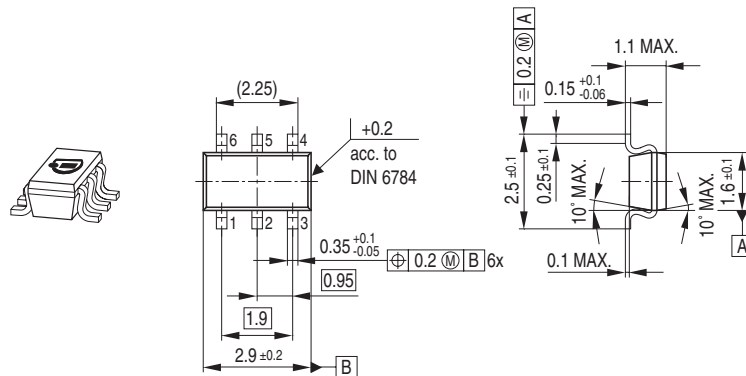
Permissible Pulse Load

$P_{totmax}/P_{totDC} = f(t_p)$

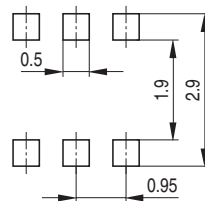
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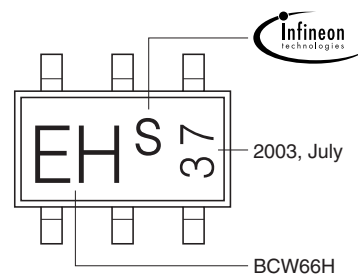
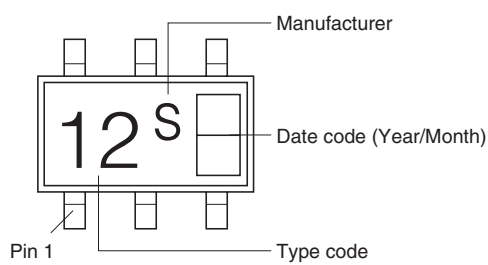
Package Outline



Foot Print



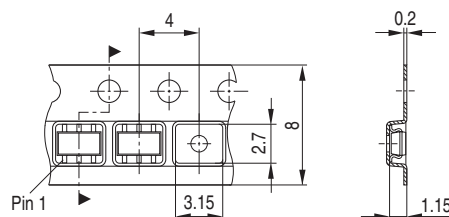
Marking Layout



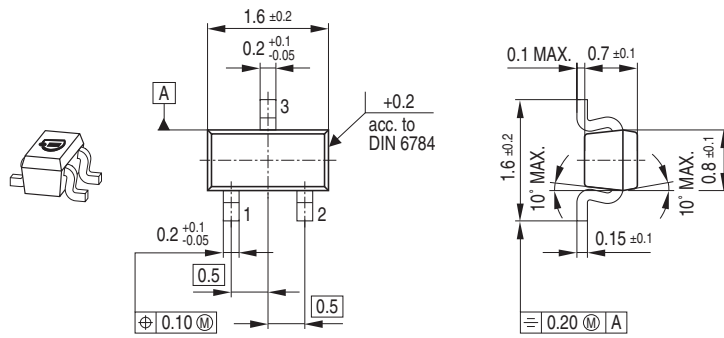
Example

Packing

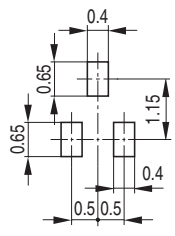
Code E6327: Reel ø180 mm = 3.000 Pieces/Reel
 Code E6433: Reel ø330 mm = 10.000 Pieces/Reel



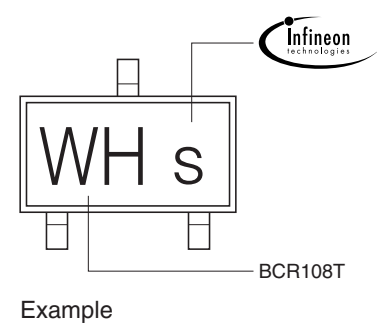
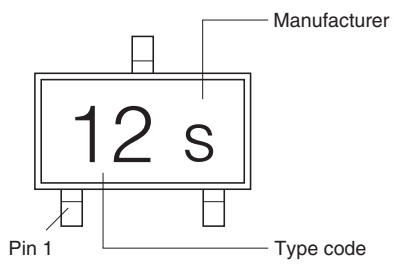
Package Outline



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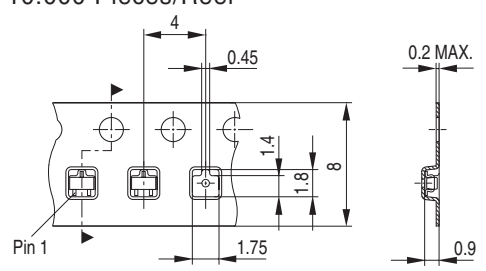


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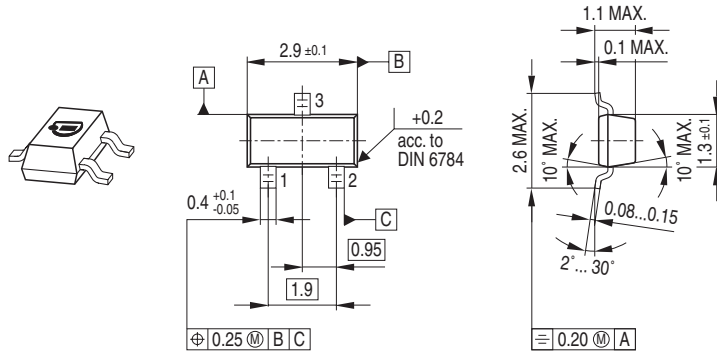


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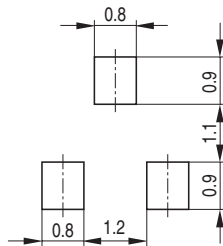
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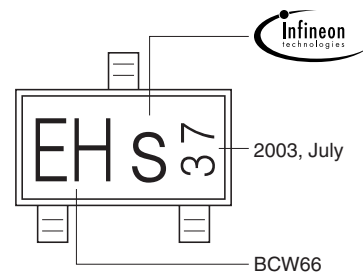
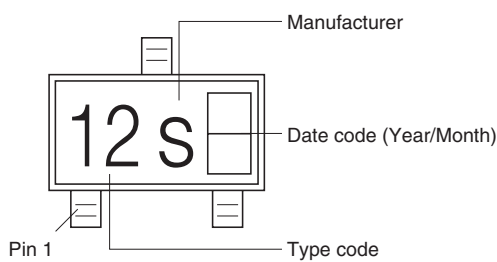
Package Outline



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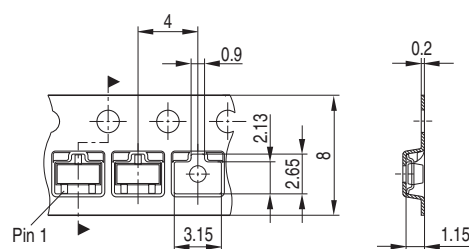


Example

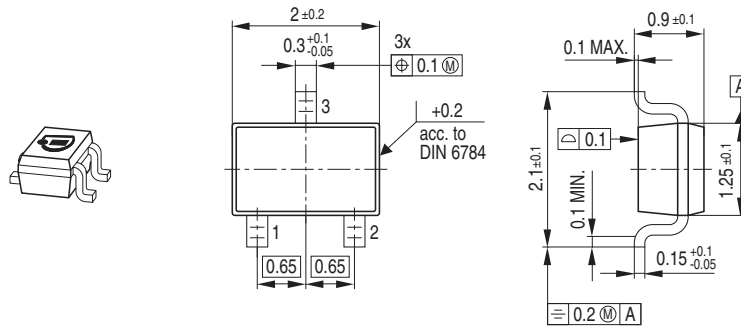
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Code E6327: Reel \varnothing 180 mm = 3.000 Pieces/Reel

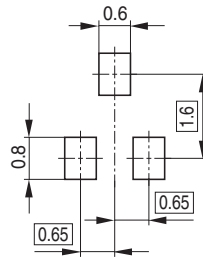
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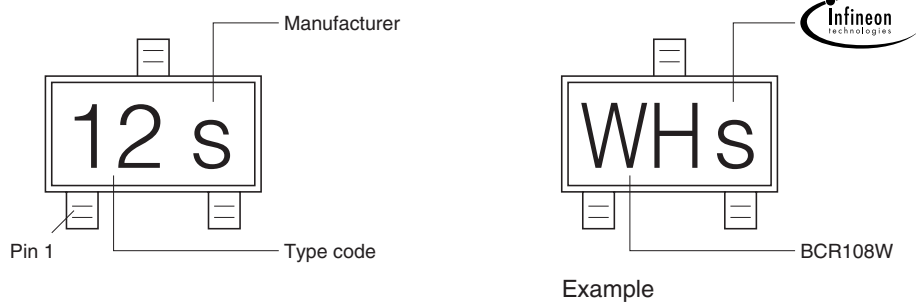
Package Outline



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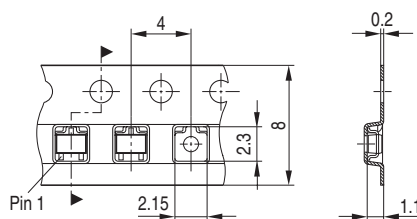


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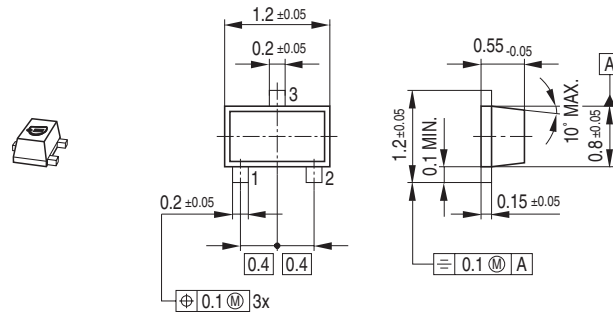


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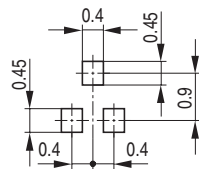
Code E6327: Reel $\varnothing 180$ mm = 3.000 Pieces/Reel
 Code E6433: Reel $\varnothing 330$ mm = 10.000 Pieces/Reel



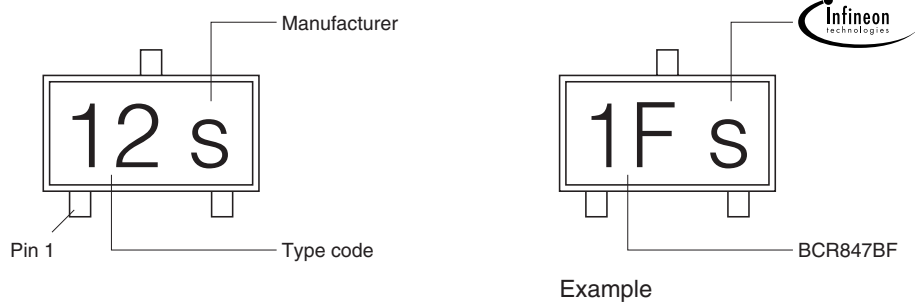
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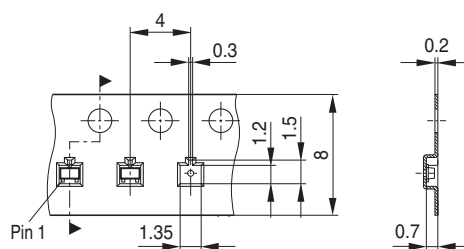


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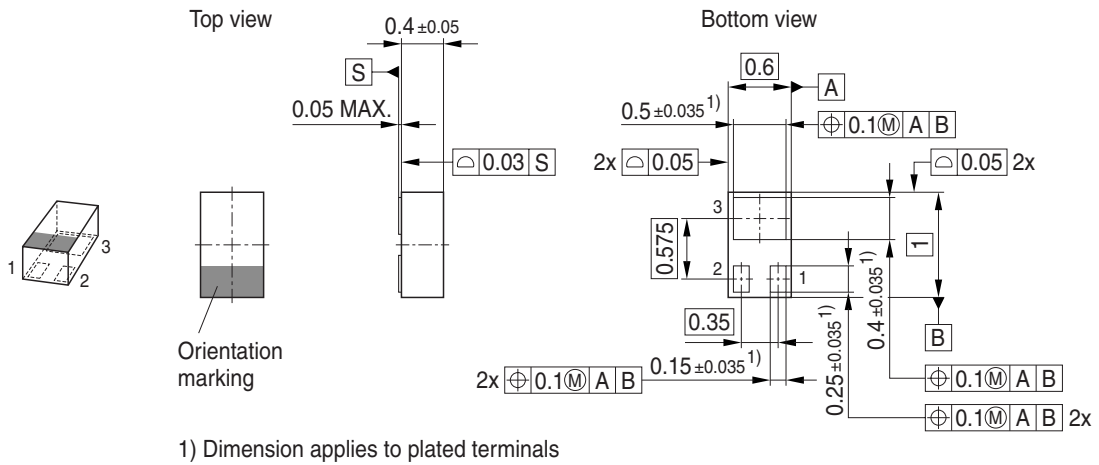


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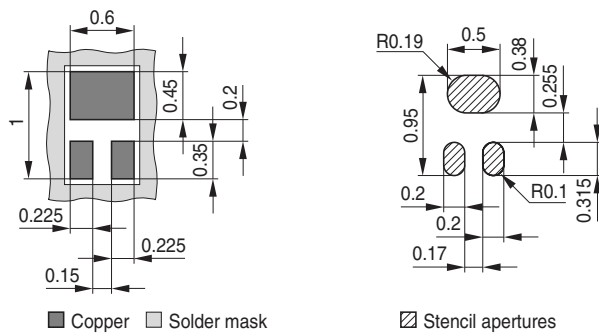
Code E6327: Reel \varnothing 180 mm = 3.000 Pieces/Reel
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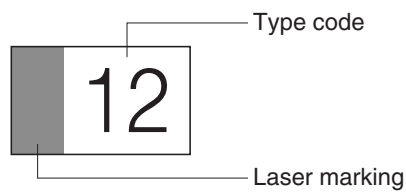
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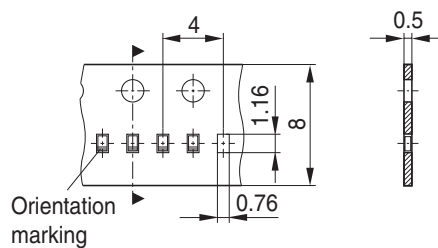


Marking Layout



Packing

Code E6327: Reel $\varnothing 180$ mm = 15.000 Pieces/Reel



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