



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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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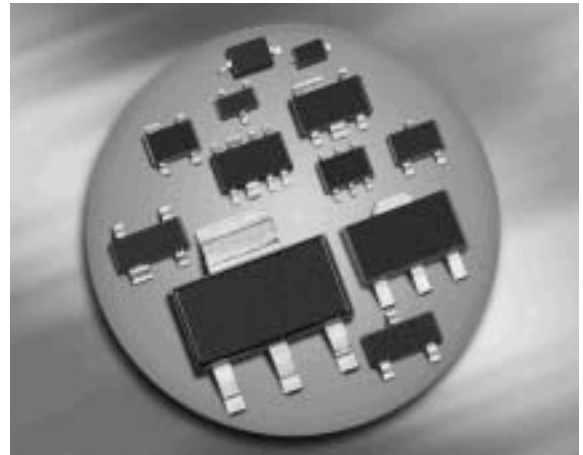
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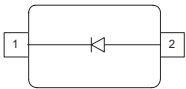


Silicon Schottky Diode

- Medium current rectifier Schottky diode
- Low forward voltage at 200mA
- High reverse voltage
- Pb-free (RoHS compliant) package¹⁾
- Qualified according AEC Q101



BAS52-02V



ESD (Electrostatic discharge) sensitive device, observe handling precaution!

Type	Package	Configuration	Marking
BAS52-02V	SC79	single	y

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

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	45	V
Forward current	I_F	750	mA
Average rectified forward current (50/60Hz, sinus)	I_{FAV}	500	mA
Non-repetitive peak surge forward current $t = 100 \mu\text{s}$	I_{FSM}	2000	
Total power dissipation $T_S \leq 110^\circ\text{C}$	P_{tot}	500	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ²⁾	R_{thJS}	≤ 60	K/W

¹⁾Pb-containing package may be available upon special request

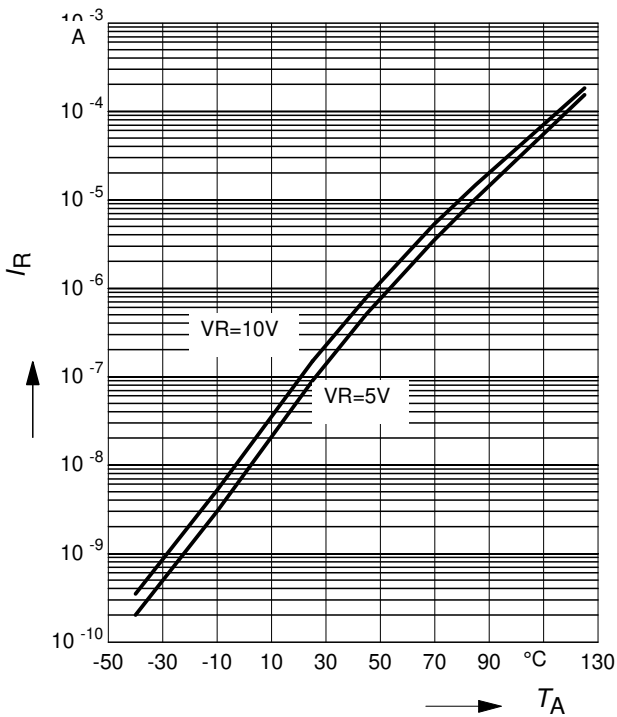
²⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current	I_R				μA
$V_R = 45\text{ V}$		-	-	10	
$V_R = 5\text{ V}, T_A = 70^\circ\text{C}$		-	-	30	
$V_R = 10\text{ V}$		-	-	1	
$V_R = 10\text{ V}, T_A = 85^\circ\text{C}$		-	-	80	
Forward voltage	V_F				mV
$I_F = 10\text{ mA}$		-	335	420	
$I_F = 100\text{ mA}$		-	430	530	
$I_F = 200\text{ mA}$		400	500	600	
AC Characteristics					
Diode capacitance	C_T	-	5	10	pF
$V_R = 10\text{ V}, f = 1\text{ MHz}$					

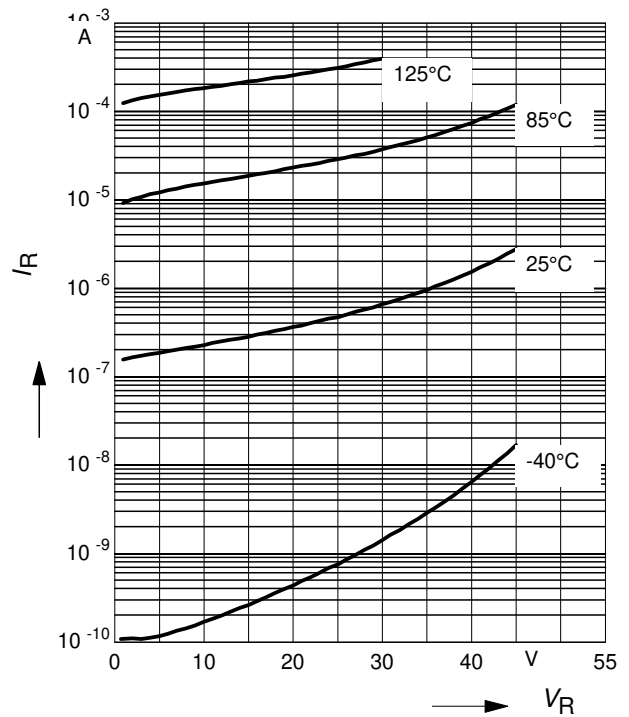
Reverse current $I_R = f(T_A)$

$V_R = \text{Parameter}$



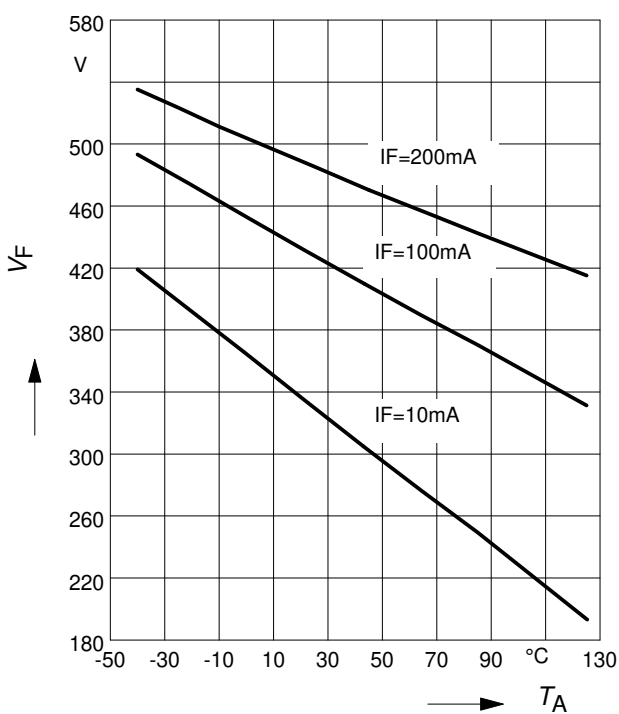
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



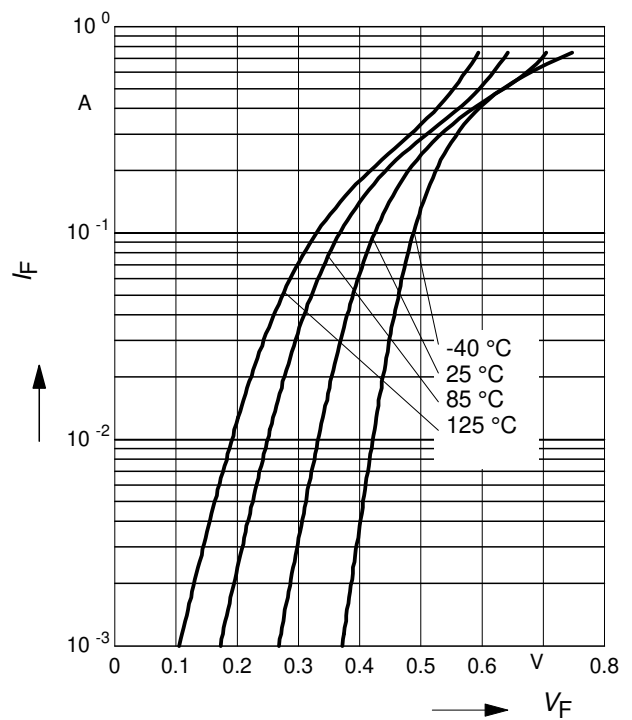
Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$



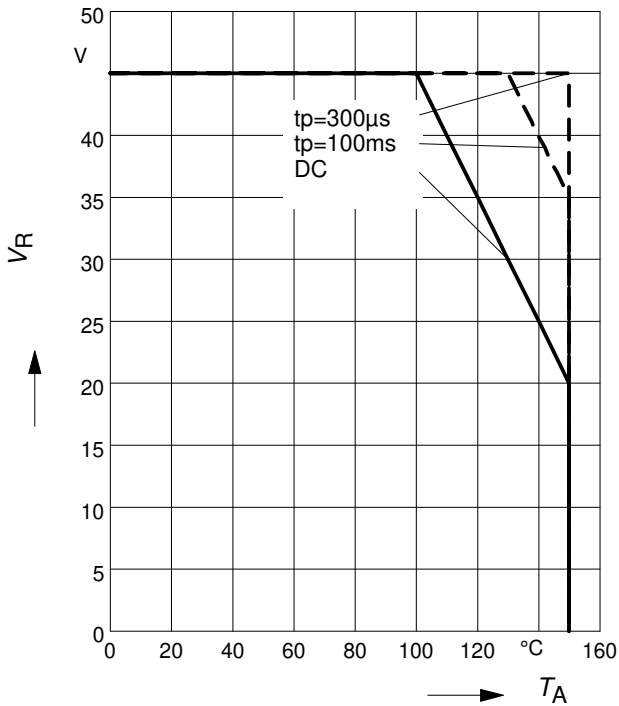
Forward current $I_F = f(V_F)$

$T_A = \text{Parameter}$

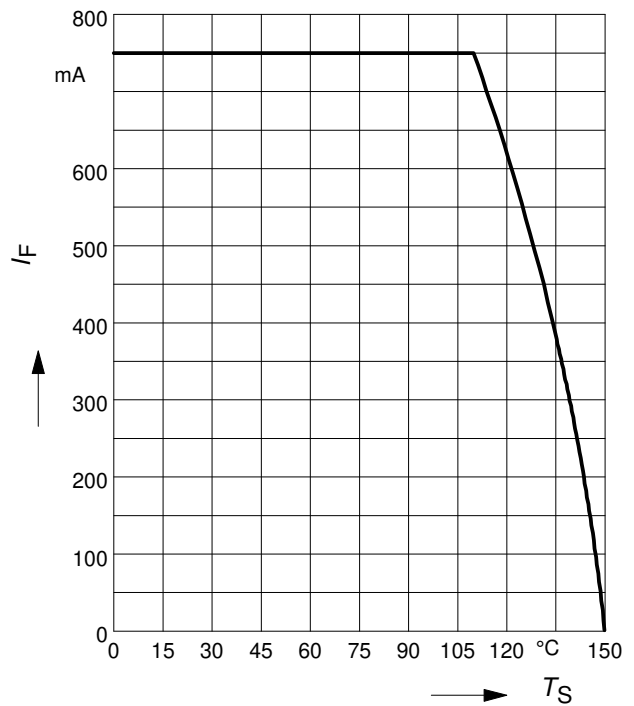


Permissible Reverse voltage $V_R = f(T_A)$

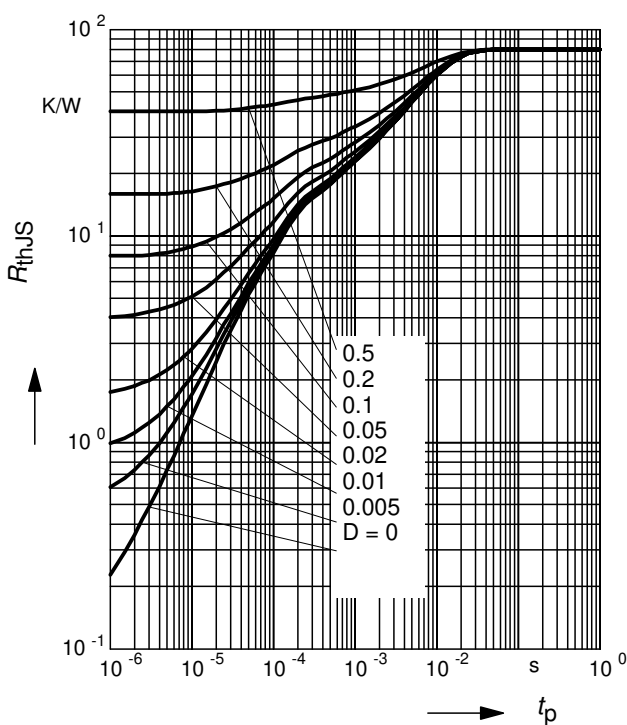
t_p = Parameter
Duty cycle < 0.01



Forward current $I_F = f(T_S)$

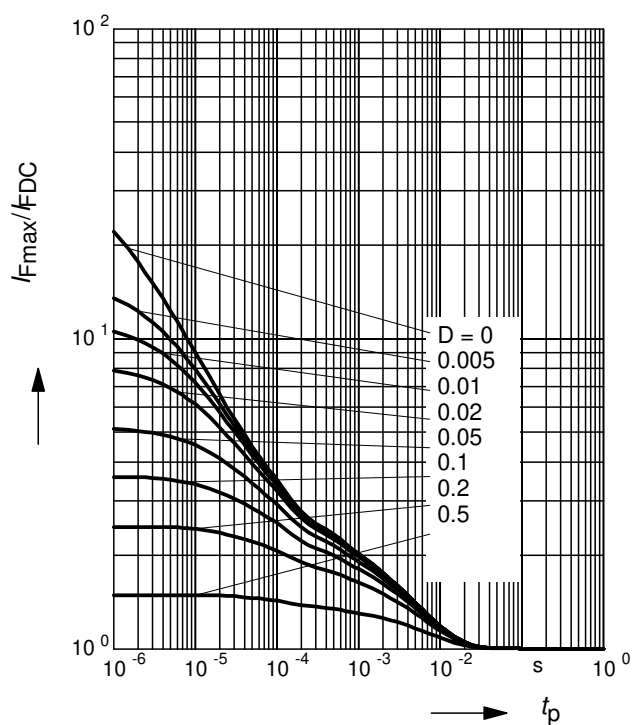


Permissible Puls Load $R_{thJS} = f(t_p)$

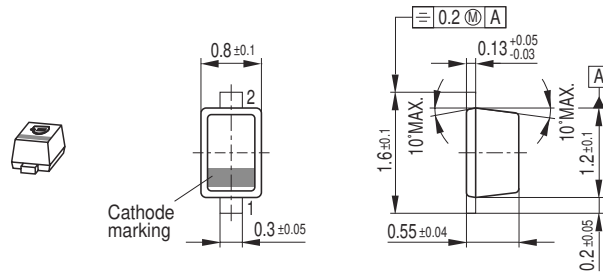


Permissible Pulse Load

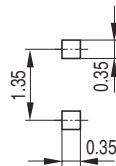
$I_{Fmax} / I_{FDC} = f(t_p)$



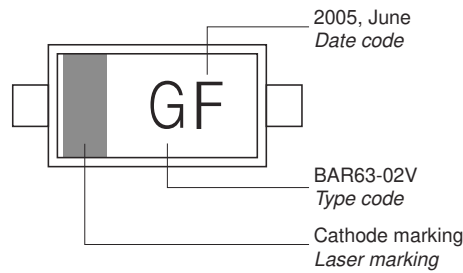
Package Outline



Foot Print

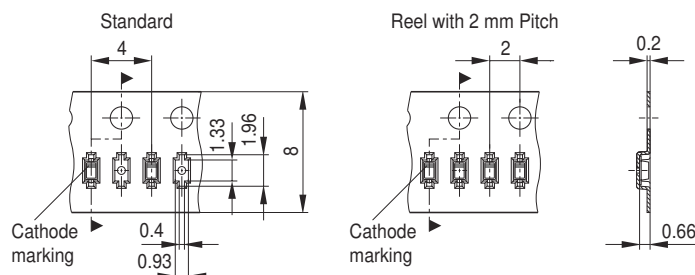


Marking Layout (Example)



Standard Packing

Reel \varnothing 180 mm = 3.000 Pieces/Reel
 Reel \varnothing 180 mm = 8.000 Pieces/Reel (2 mm Pitch)
 Reel \varnothing 330 mm = 10.000 Pieces/Reel



Date Code marking for discrete packages with one digit (SCD80, SC79, SC75¹⁾) CES-Code

Month	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
01	a	p	A	P	a	p	A	P	a	p	A	P
02	b	q	B	Q	b	q	B	Q	b	q	B	Q
03	c	r	C	R	c	r	C	R	c	r	C	R
04	d	s	D	S	d	s	D	S	d	s	D	S
05	e	t	E	T	e	t	E	T	e	t	E	T
06	f	u	F	U	f	u	F	U	f	u	F	U
07	g	v	G	V	g	v	G	V	g	v	G	V
08	h	x	H	X	h	x	H	X	h	x	H	X
09	j	y	J	Y	j	y	J	Y	j	y	J	Y
10	k	z	K	Z	k	z	K	Z	k	z	K	Z
11	l	2	L	4	l	2	L	4	l	2	L	4
12	n	3	N	5	n	3	N	5	n	3	N	5

1) New Marking Layout for SC75, implemented at October 2005.

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