



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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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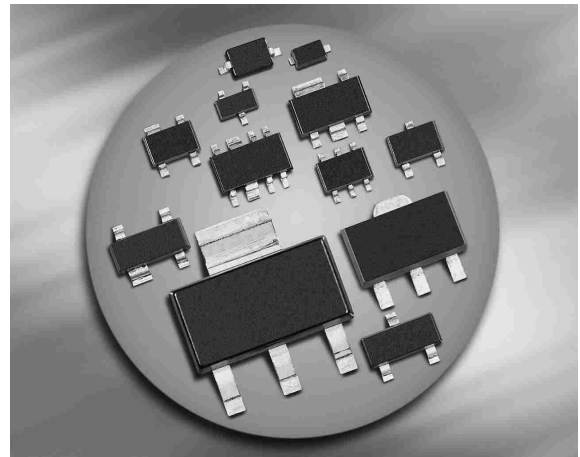
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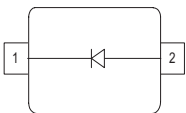


Silicon Tuning Diodes

- High Q hyperabrupt tuning diode
- Designed for low tuning voltage operation
- For VCO`s in mobile communications equipment
- Pb-free (RoHS compliant) package



BBY52-02L
BBY52-02W



Type	Package	Configuration	L_S (nH)	Marking
BBY52-02L	TSLP-2-1	single, leadless	0.4	K
BBY52-02W	SCD80	single	0.6	KK

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

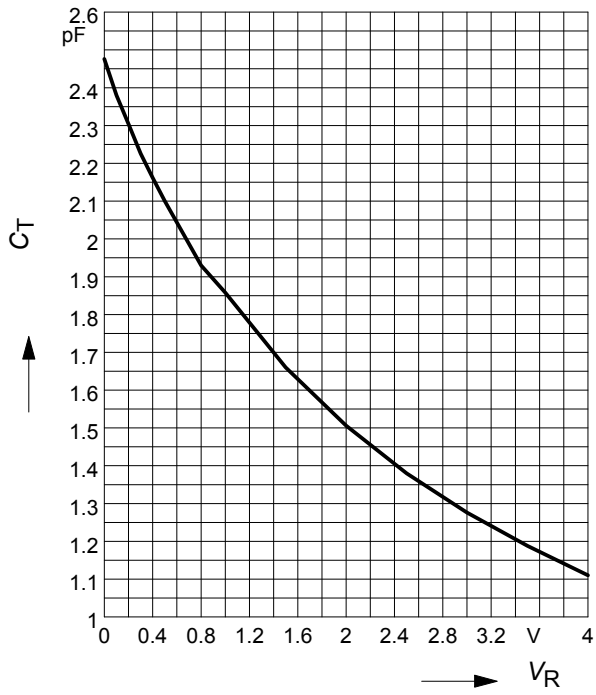
Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	7	V
Forward current	I_F	20	mA
Operating temperature range	T_{op}	-55 ... 150	°C
Storage temperature	T_{stg}	-55 ... 150	

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				nA
$V_R = 6\text{ V}$		-	-	10	
$V_R = 6\text{ V}, T_A = 85^\circ\text{C}$		-	-	200	
AC Characteristics					
Diode capacitance	C_T				pF
$V_R = 1\text{ V}, f = 1\text{ MHz}$		1.4	1.85	2.2	
$V_R = 2\text{ V}, f = 1\text{ MHz}$		0.95	1.5	2	
$V_R = 3\text{ V}, f = 1\text{ MHz}$		0.9	1.35	1.75	
$V_R = 4\text{ V}, f = 1\text{ MHz}$		0.85	1.15	1.45	
Capacitance ratio	C_{T1}/C_{T4}	1.1	1.6	2.1	
$V_R = 1\text{ V}, V_R = 4\text{ V}, f = 1\text{ MHz}$					
Series resistance	r_S	-	0.9	1.7	Ω
$V_R = 1\text{ V}, f = 1\text{ GHz}$					

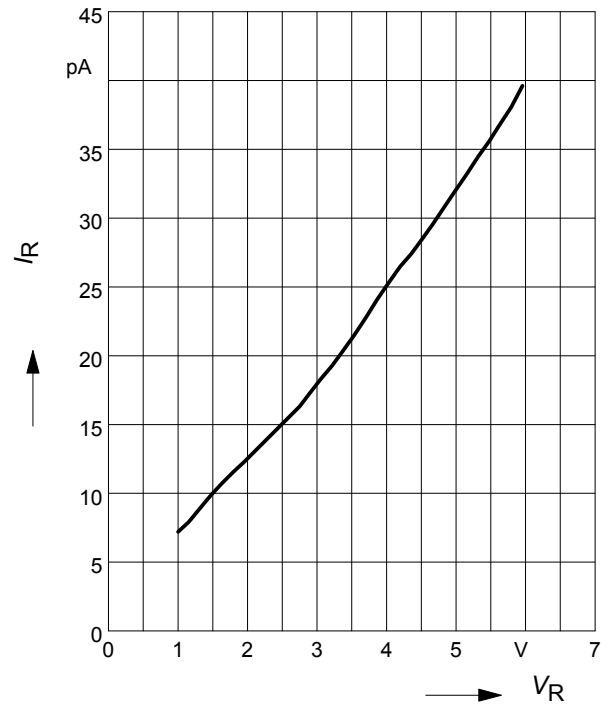
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$

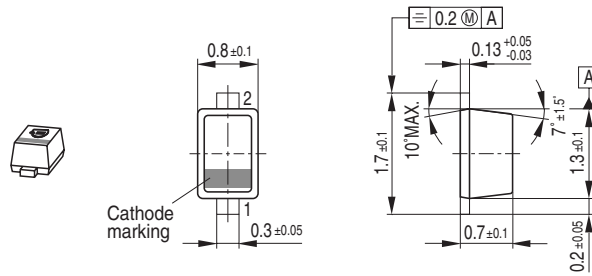


Reverse current $I_R = f(V_R)$

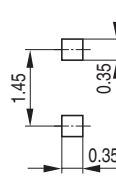
$T_A = 25^\circ\text{C}$



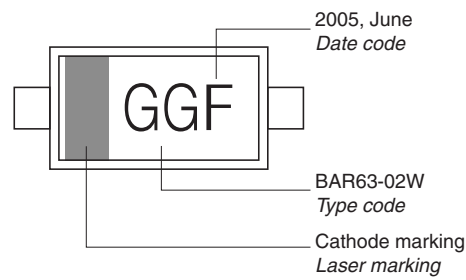
Package Outline



Foot Print

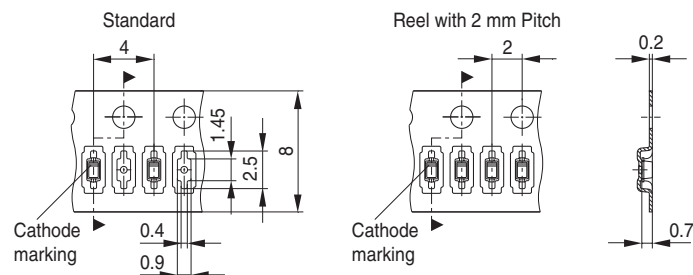


Marking Layout (Example)



Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
 Reel ø180 mm = 8.000 Pieces/Reel (2 mm Pitch)
 Reel ø330 mm = 10.000 Pieces/Reel

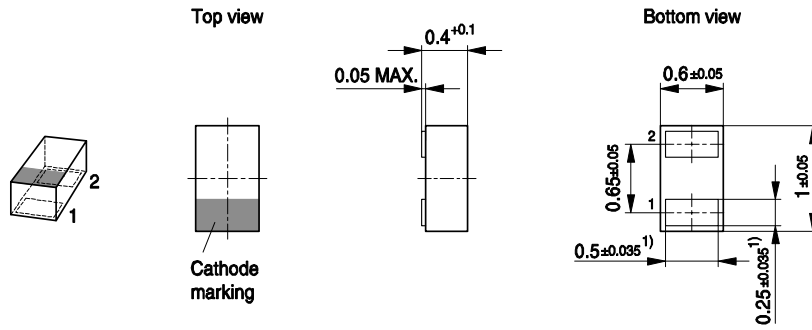


Date Code marking for discrete packages with one digit (SCD80, SC79, SC75¹⁾) CES-Code

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.

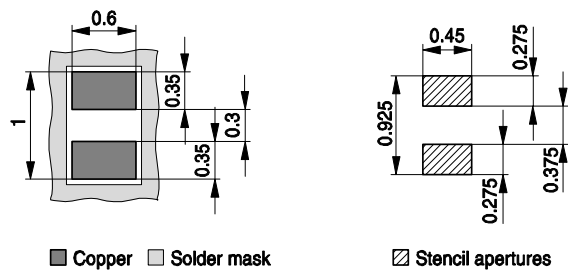
Package Outline



1) Dimension applies to plated terminal

Foot Print

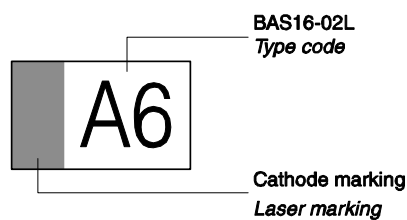
For board assembly information please refer to Infineon website "Packages"



■ Copper □ Solder mask

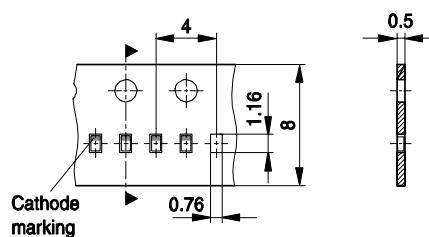
▨ Stencil apertures

Marking Layout (Example)



Standard Packing

Reel \varnothing 180 mm = 15.000 Pieces/Reel
 Reel \varnothing 330 mm = 50.000 Pieces/Reel (optional)



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