SB3003CH

Schottky Barrier Diode
30V, 3A, Low IR, Single

ON Semiconductor®

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Applications

- High frequency rectification (switching regulators, converters, choppers)

Features

- Small switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Ultrasmall package permitting applied sets to be small and slim (Mounting height 0.9mm)
- Halogen free compliance : SB3003CH-TL-W

Specifications

Absolute Maximum Ratings at Ta=25°C

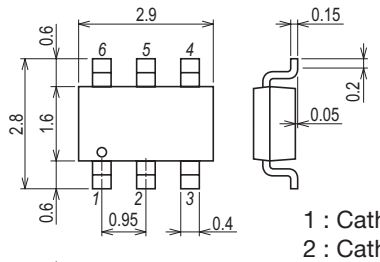
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Output Current	I_O		3.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	20	A
Junction Temperature	Tj		−55 to +125	°C
Storage Temperature	Tstg		−55 to +125	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

Package Dimensions

unit : mm (typ)

7018A-012



SB3003CH-TL-E
SB3003CH-TL-W

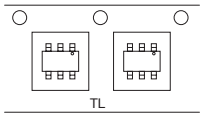
1 : Cathode
2 : Cathode
3 : No contact
4 : Anode
5 : Cathode
6 : Cathode

CPH6

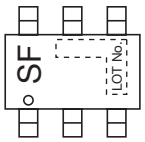
Product & Package Information

- Package : CPH6
- JEITA, JEDEC : SC-74, SOT-26, SOT-457
- Minimum Packing Quantity : 3,000 pcs./reel

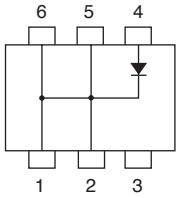
Packing Type: TL



Marking



Electrical Connection



ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

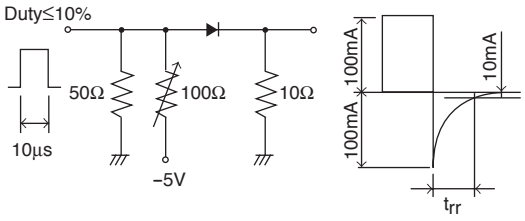
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Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=0.5mA	30			V
Forward Voltage	V_F1	I_F=2.0A		0.435	0.485	V
	V_F2	I_F=3.0A		0.47	0.52	V
Reverse Current	I_R	V_R=15V			42	μA
Interterminal Capacitance	C	V_R=10V, f=1MHz		90		pF
Reverse Recovery Time	t_{rr}	I_F=I_R=100mA, See specified Test Circuit.			20	ns
Thermal Resistance	Rth(j-a)	When mounted on ceramic substrate (900mm²×0.8mm)		50		°C / W

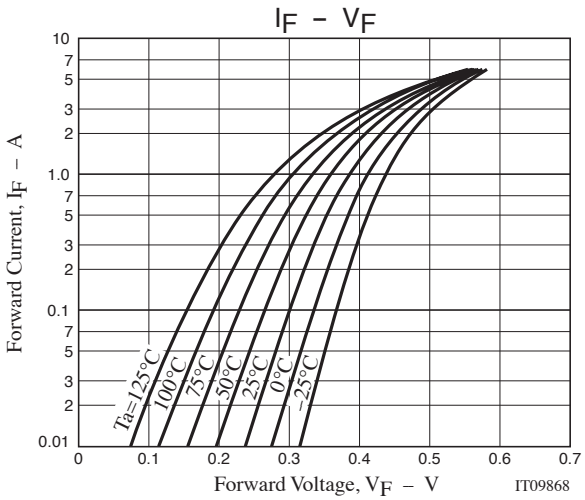
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

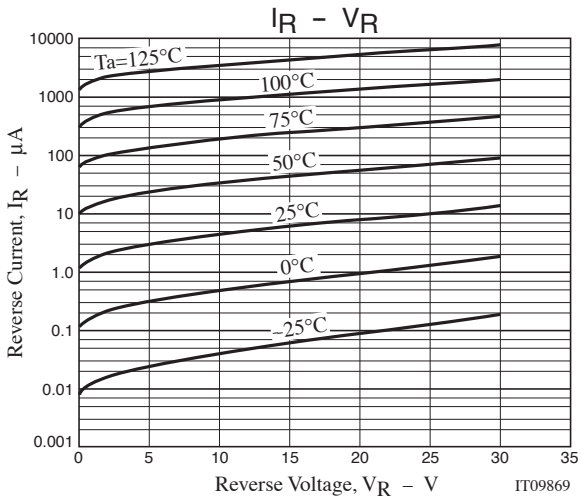
t_{rr} Test Cicuit



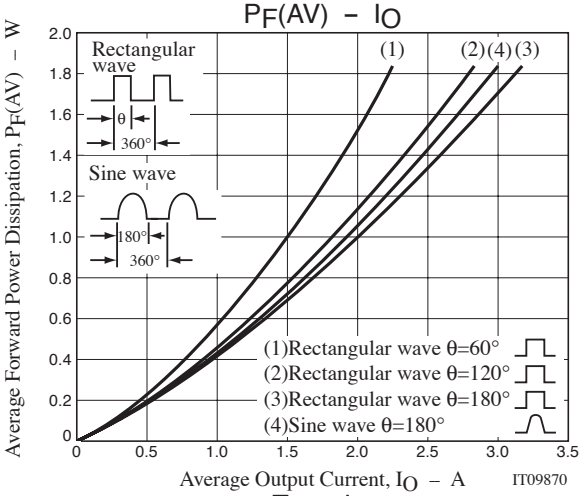
ORDERING INFORMATION

Device	Package	Shipping	memo
SB3003CH-TL-E	CPH6	3,000pcs./reel	Pb-Free
SB3003CH-TL-W			Pb-Free and Halogen Free

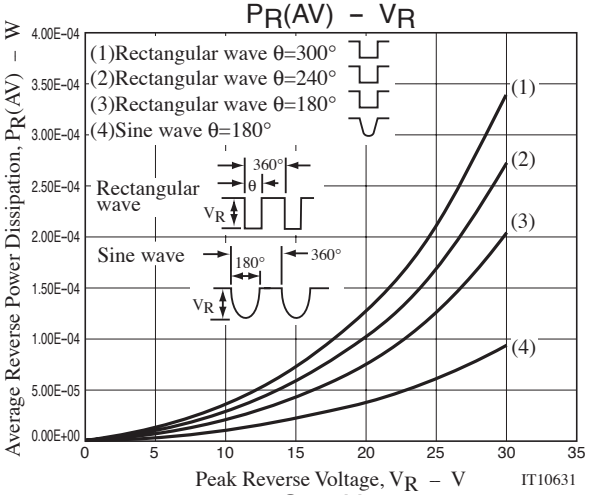




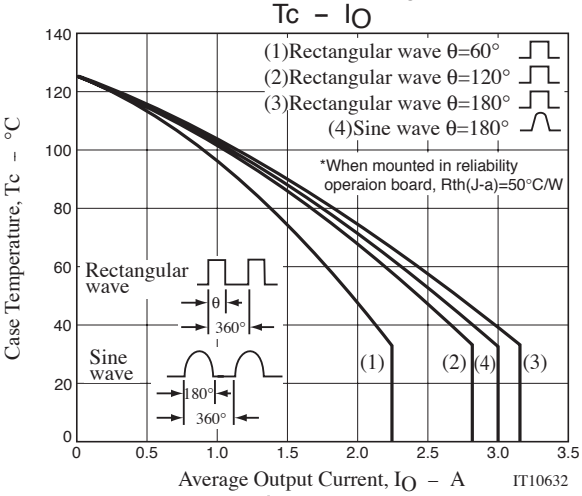
$P_{F(AV)}$ – I_O



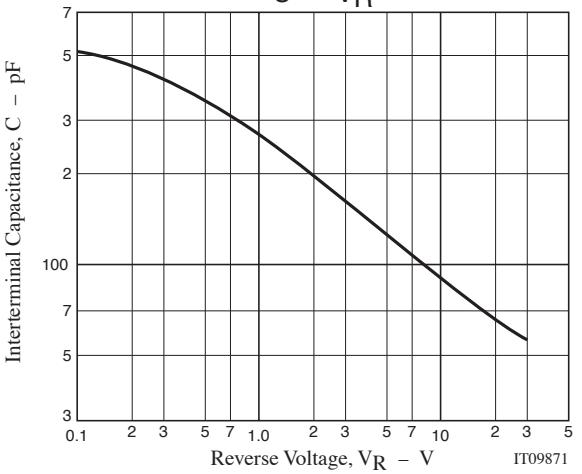
$P_{R(AV)}$ – V_R



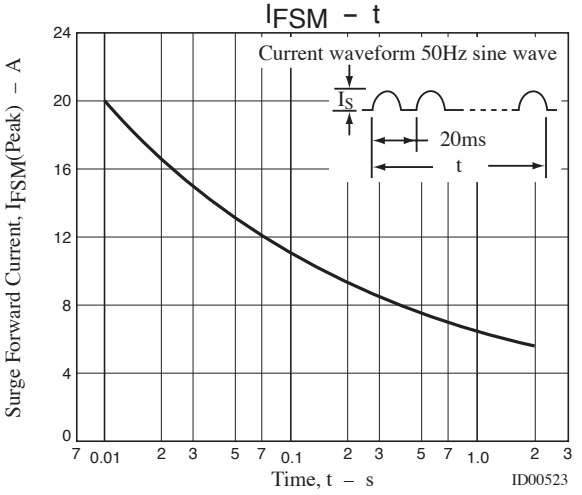
Tc – I_O



C – V_R

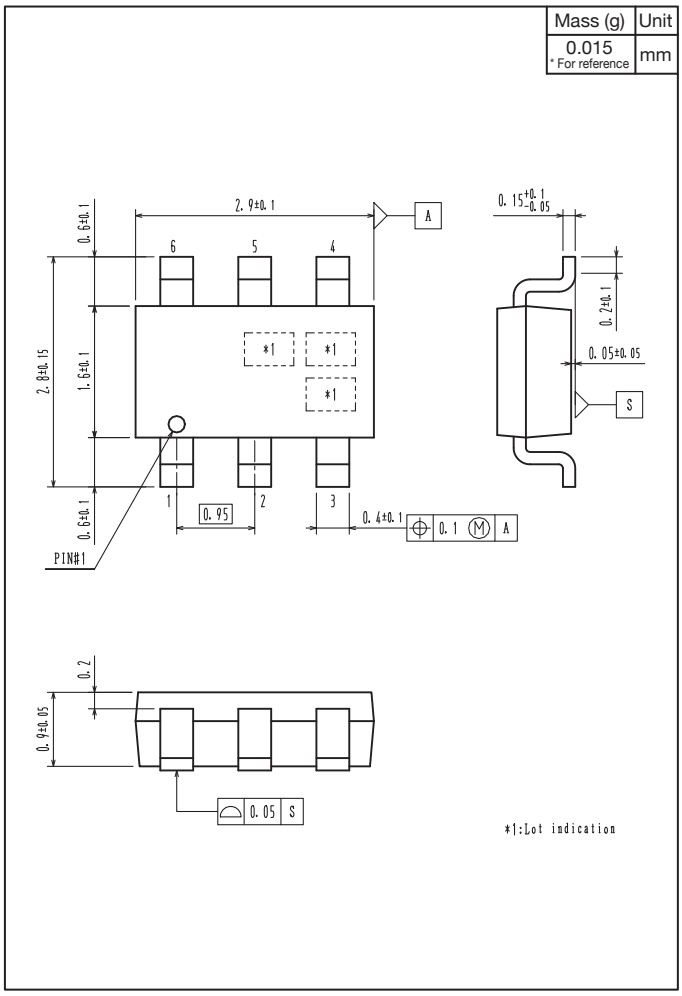


I_{FSM} – t

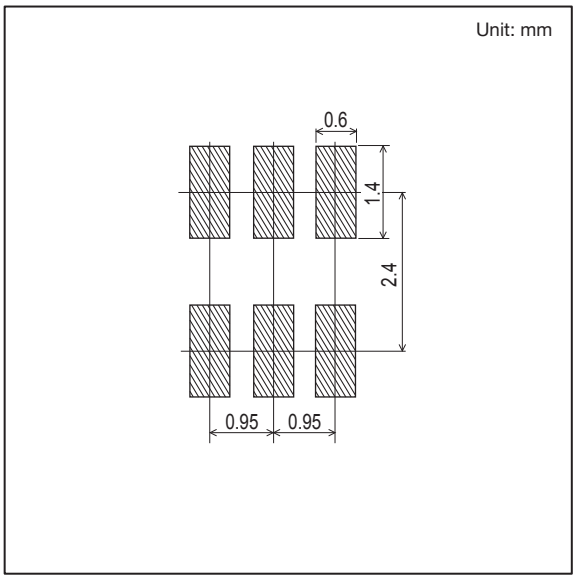


Outline Drawing

SB3003CH-TL-E, SB3003CH-TL-W



Land Pattern Example



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