



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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SB2003M

Schottky Barrier Diode 30V, 2A, Low IR, Single MCPH6

ON Semiconductor®

<http://onsemi.com>

Applications

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

Features

- Low switching noise
- Halogen free compliance
- Low leakage current and high reliability due to highly reliable planar structure
- Ultrasmall package permitting applied sets to be small and slim (mounting height 0.85mm)

Specifications

Absolute Maximum Ratings at Ta=25°C

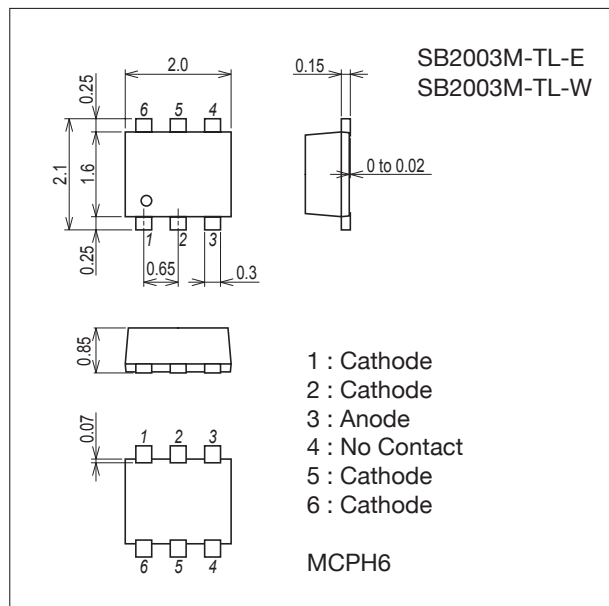
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V _{RSM}		35	V
Average Output Current	I _O		2.0	A
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T _J		-55 to +125	°C
Storage Temperature	T _{stg}		-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)

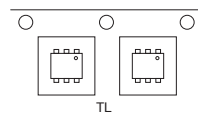
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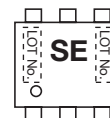
Product & Package Information

- Package : MCPH6
- JEITA, JEDEC : SC-88, SC-70-6, SOT-363
- Minimum Packing Quantity : 3,000 pcs./reel

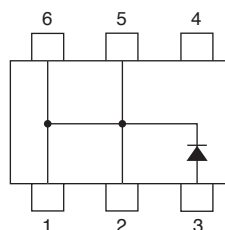
Packing Type : TL



Marking



Electrical Connection



ORDERING INFORMATION

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

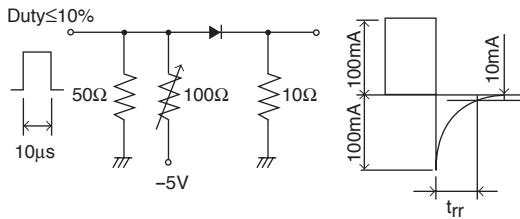
SB2003M

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.2\text{mA}$	30			V
Forward Voltage	V_F	$I_F=1.0\text{A}$		0.40	0.45	V
		$I_F=2.0\text{A}$		0.45	0.50	V
Reverse Current	I_R	$V_R=15\text{V}$			30	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		75		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			20	ns
Thermal Resistance	$R_{th(j-a)1}$	When mounted in Cu-foiled area of $1.44\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy substrate		93.4		$^\circ\text{C} / \text{W}$
	$R_{th(j-a)2}$	When mounted on ceramic substrate ($500\text{mm}^2 \times 0.8\text{mm}$)		71.4		$^\circ\text{C} / \text{W}$

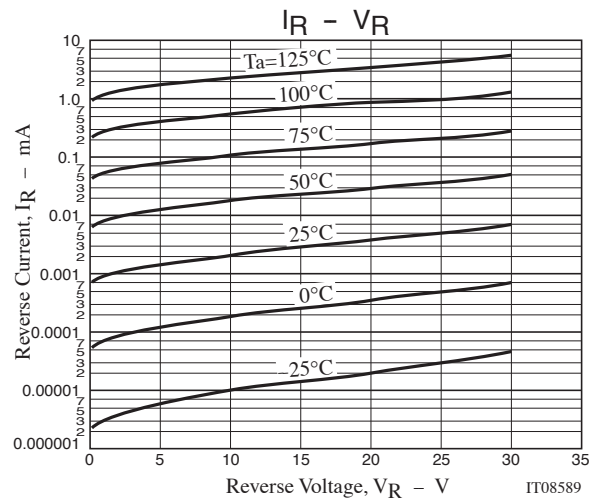
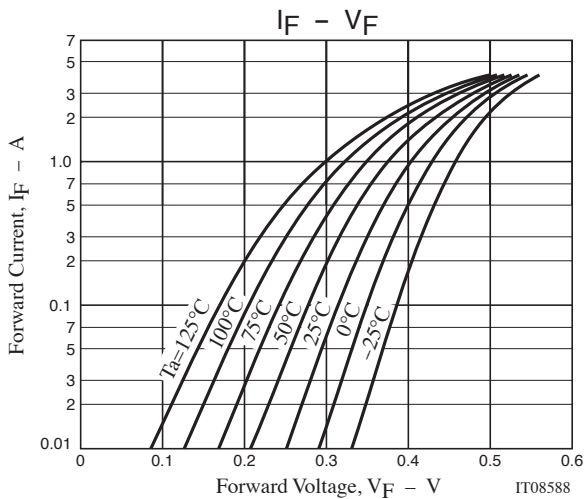
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

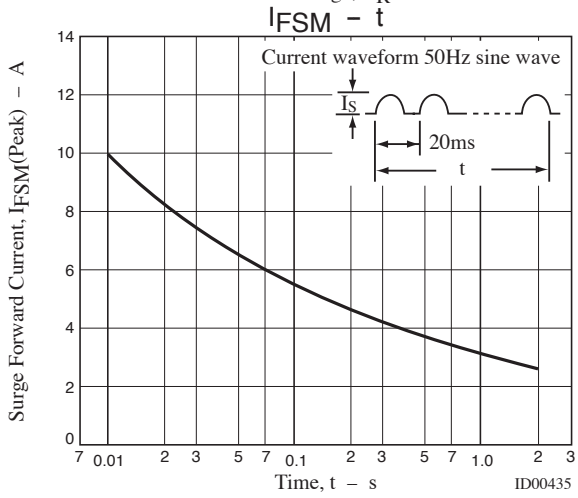
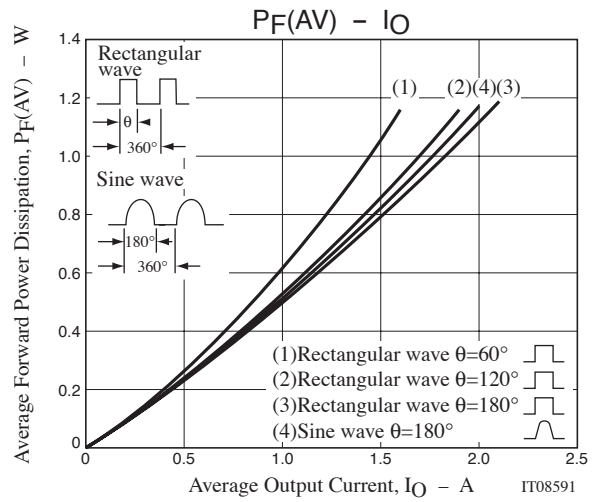
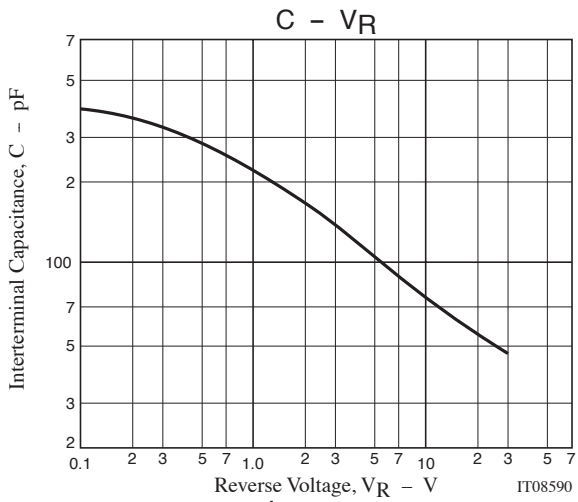
t_{rr} Test Circuit



Ordering Information

Device	Package	Shipping	memo
SB2003M-TL-E	MCPH6	3,000pcs./reel	Pb-Free
SB2003M-TL-W	MCPH6	3,000pcs./reel	Pb-Free and Halogen Free

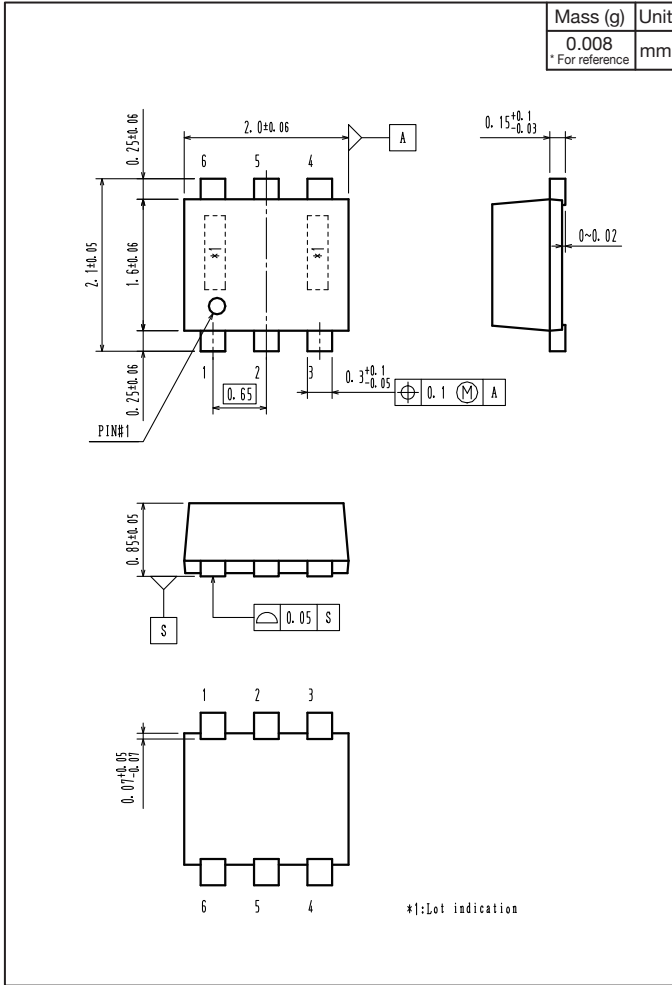




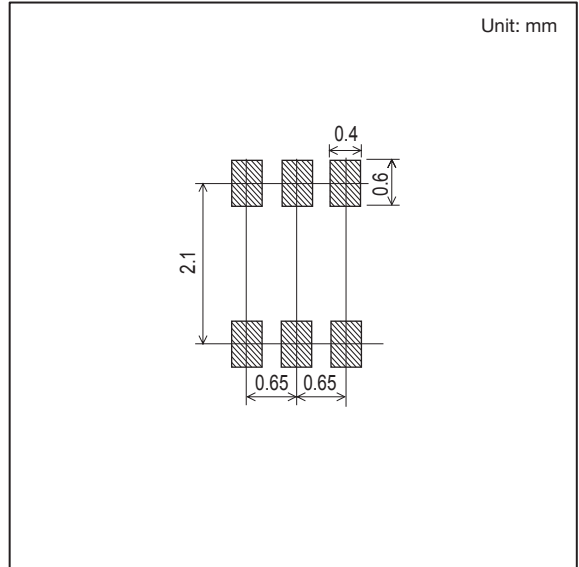
SB2003M

Outline Drawing

SB2003M-TL-E, SB2003M-TL-W



Land Pattern Example



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