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SB10015M

Schottky Barrier Diode 15V, 1A, Low IR, Single MCPH3

Applications

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

Features

- Small 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

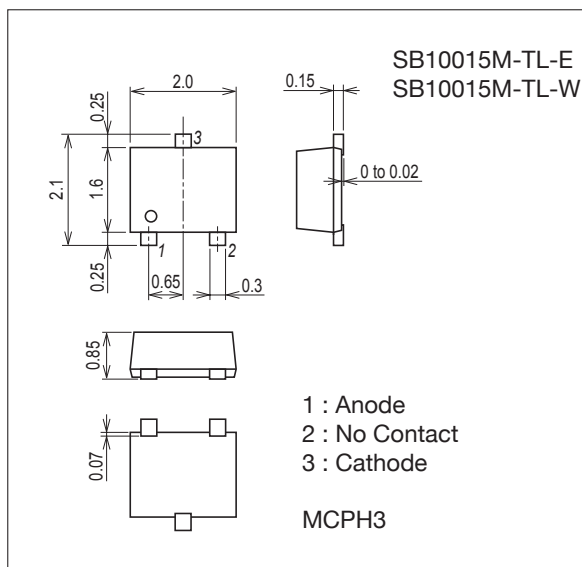
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		15	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		17	V
Average Output Current	IO		1.0	A
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	A
Junction Temperature	Tj		-55 to +150	°C
Storage Temperature	Tstg		-55 to +150	°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)

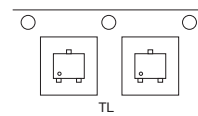
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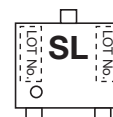
Product & Package Information

- Package : MCPH3
- JEITA, JEDEC : SC-70, SOT-323
- Minimum Packing Quantity : 3,000 pcs./reel

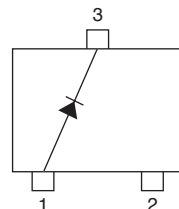
Packing Type : TL



Marking



Electrical Connection



ORDERING INFORMATION

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

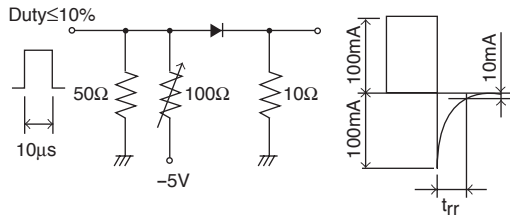
SB10015M

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.1\text{mA}$	15			V
Forward Voltage	V_{F1}	$I_F=0.5\text{A}$		0.43	0.48	V
	V_{F2}	$I_F=1.0\text{A}$		0.49	0.54	V
Reverse Current	I_R	$V_R=7.5\text{V}$			3	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		20		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{\theta(j-a)}$	When mounted in Cu-foiled area of $0.72\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy substrate		185		$^{\circ}\text{C} / \text{W}$

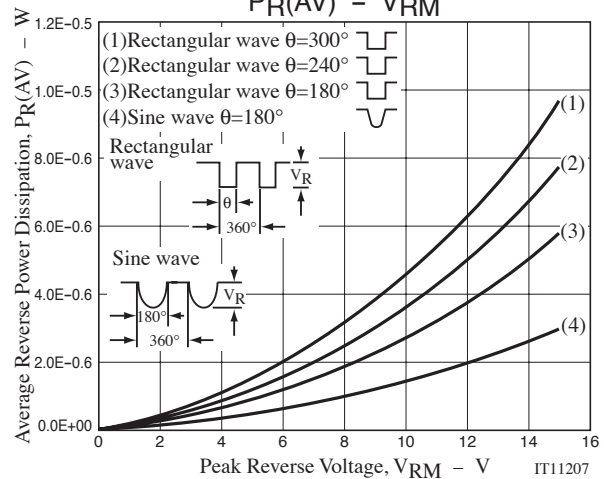
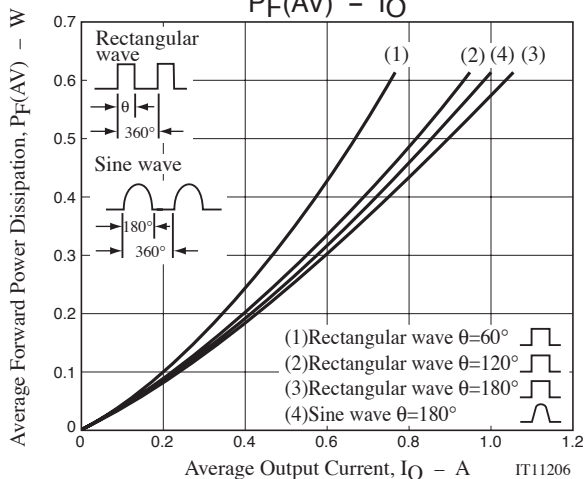
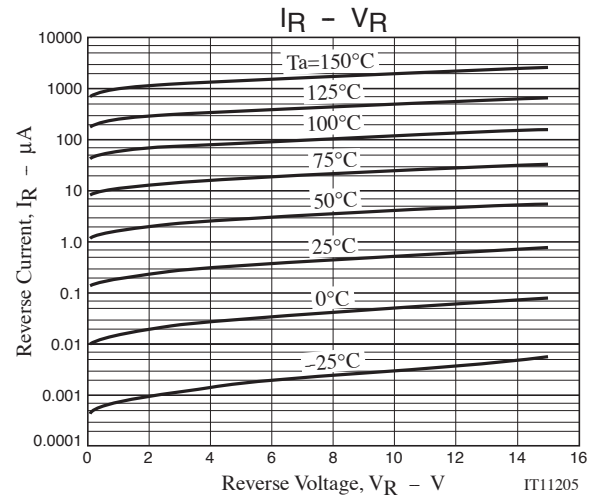
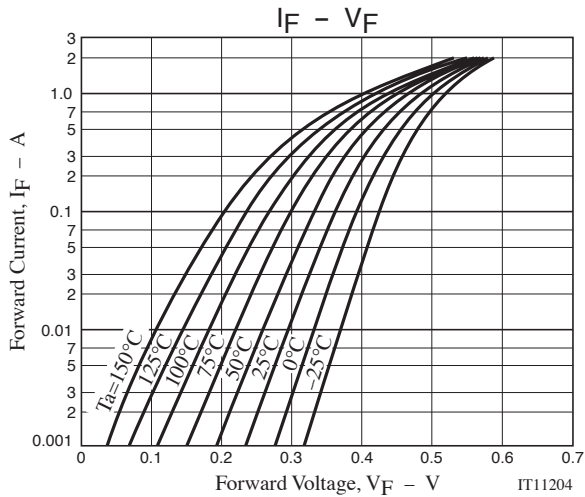
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

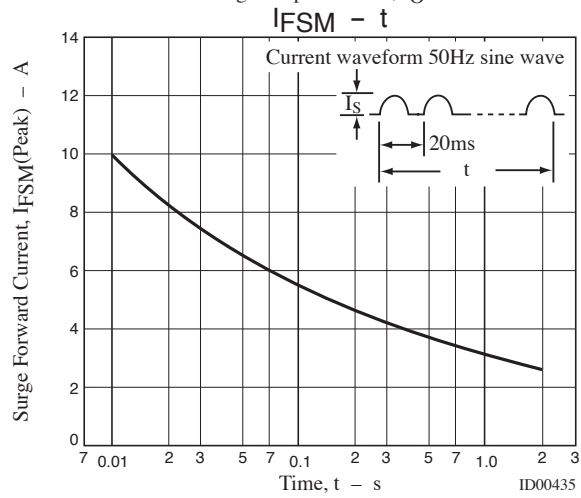
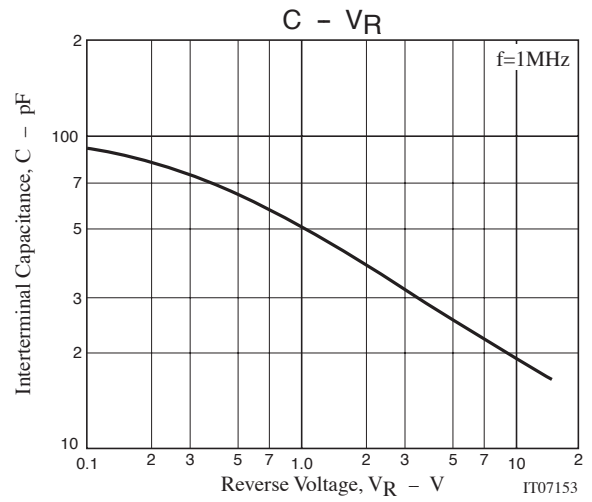
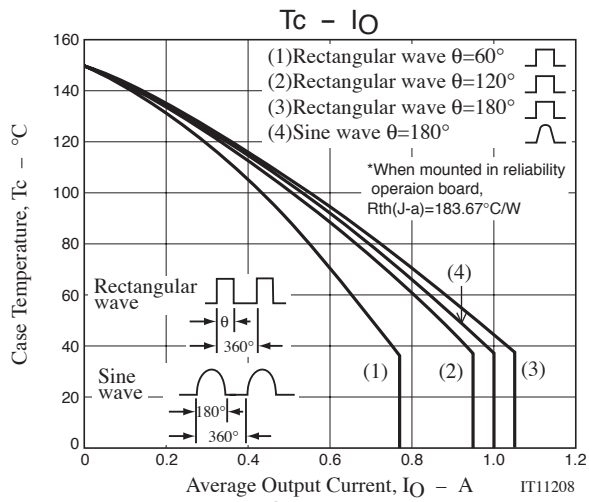
t_{rr} Test Circuit



Ordering Information

Device	Package	Shipping	memo
SB10015M-TL-E	MCPH3	3,000pcs./reel	Pb-Free
SB10015M-TL-W	MCPH3	3,000pcs./reel	Pb-Free and Halogen Free

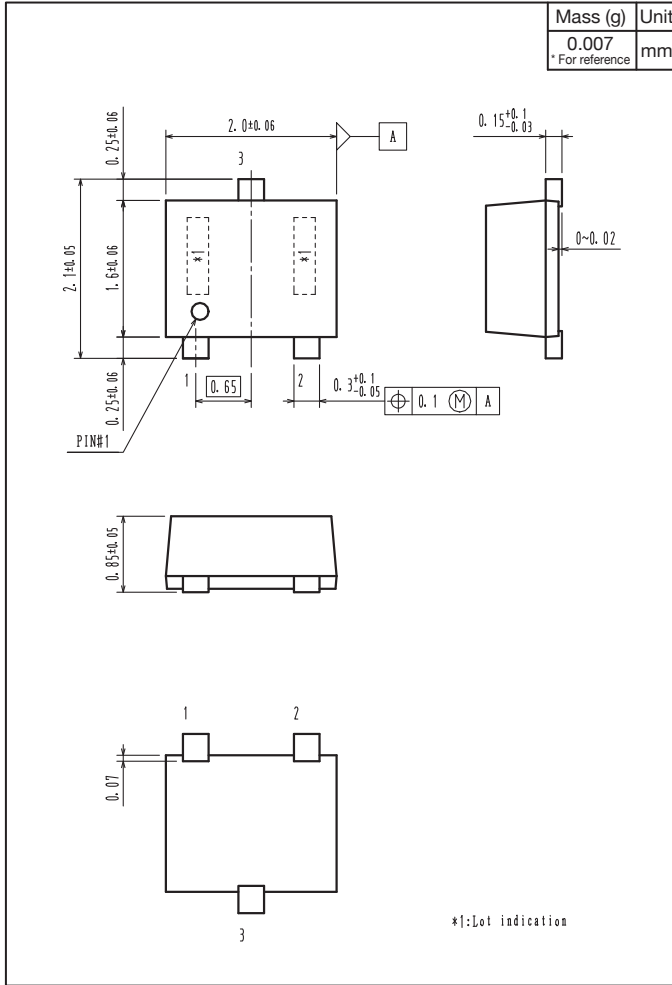




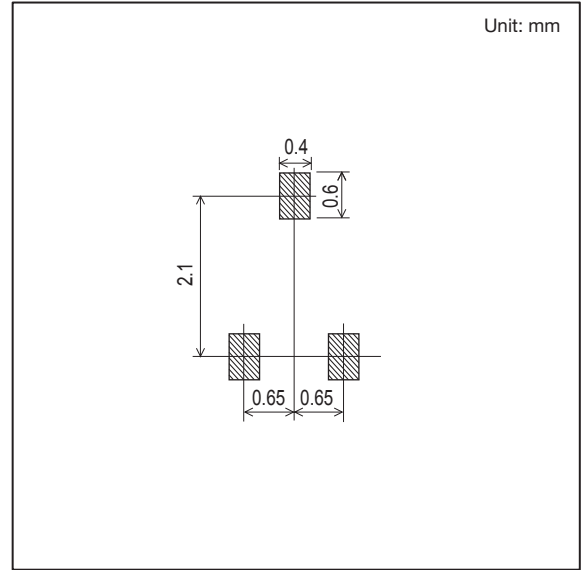
SB10015M

Outline Drawing

SB10015M-TL-E, SB10015M-TL-W



Land Pattern Example



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