SB1003M3

ON Semiconductor®

Schottky Barrier Diode 30V, 1A, Low IR, Single MCPH3

Applications

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

Features

- · Low 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 0.85mm)
- · Halogen free compliance

Specifications

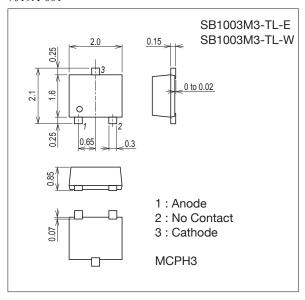
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		30	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		35	V
Average Output Current	lo		1.0	Α
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	Α
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) 7019A-001

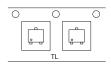


Product & Package Information

• Package : MCPH3

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

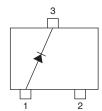
Packing Type: TL



Marking



Electrical Connection



ORDERING INFORMATION

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

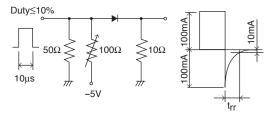
SB1003M3

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
		Conditions	min	typ	max	OIIII
Reverse Voltage	VR	I _R =0.5mA	30			V
Forward Voltage	V _F 1	IF=0.7A		0.45	0.50	V
	V _F 2	IF=1.0A		0.48	0.53	V
Reverse Current	IR	V _R =16V			15	μΑ
Interterminal Capacitance	С	V _R =10V, f=1MHz		27		pF
Reverse Recovery Time	t _{rr}	IF=IR=100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)1	When mounted in Cu-foiled area of		04.7		°C/W
		0.72mm ² ×0.03mm on glass epoxy substrate		94.7		C/W
	Rth(j-a)2	When mounted on ceramic substrate (500mm ² ×0.8mm)		67.7		°C / W

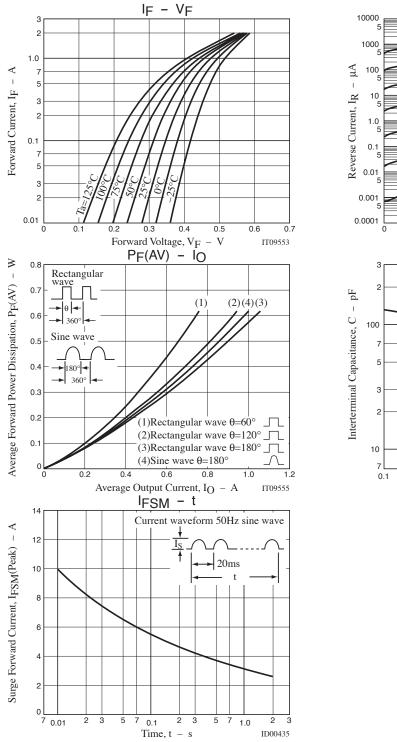
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

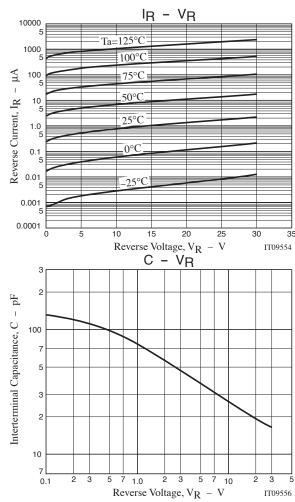
t_{rr} Test Circuit



Ordering Information

Device	Package	Shipping	memo	
SB1003M3-TL-E	МСРН3	3,000pcs./reel	Pb-Free	
SB1003M3-TL-W	МСРН3	3,000pcs./reel	Pb-Free and Halogen Free	



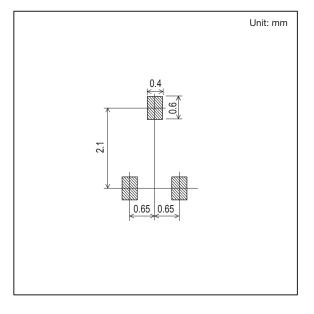


Outline Drawing

SB1003M3-TL-E, SB1003M3-TL-W

Mass (g) Unit 0.007 mm 2.040.06 3 2.040.06 3 3 4|:Lot indication

Land Pattern Example



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