



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

SB1003M3 — Schottky Barrier Diode

30V, 1.0A Rectifier

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)

Specifications

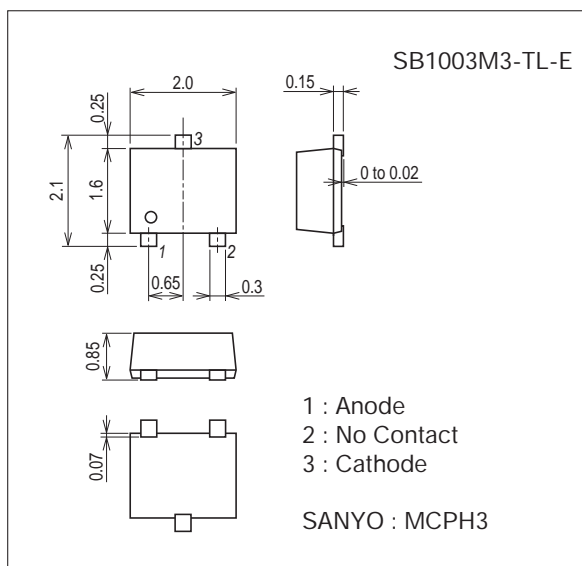
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		30	V
Nonrepetitive Peak Reverse Surge Voltage	VSRM		35	V
Average Output Current	IO		1.0	A
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	A
Junction Temperature	Tj		-55 to +125	°C
Storage Temperature	Tstg		-55 to +125	°C

Package Dimensions

unit : mm (typ)

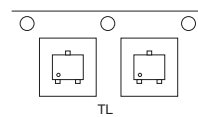
7019A-001



Product & Package Information

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

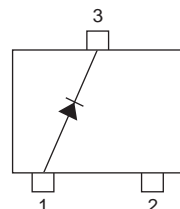
Packing Type : TL



Marking



Electrical Connection

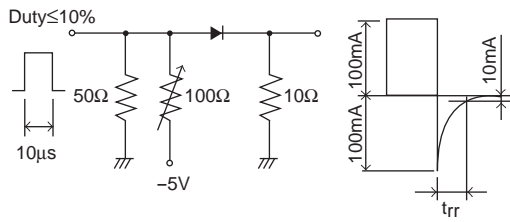


SB1003M3

Electrical Characteristics at Ta=25°C

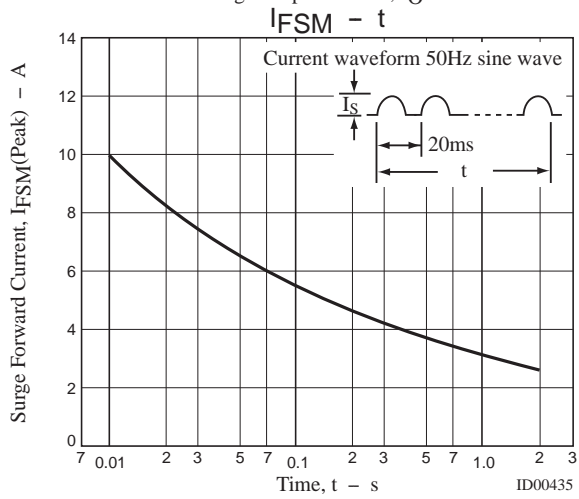
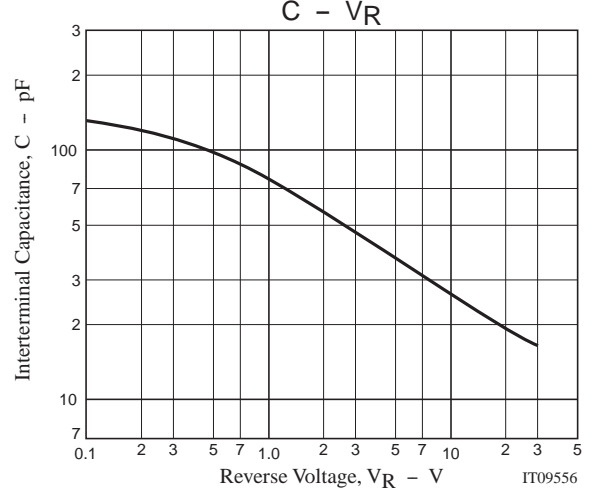
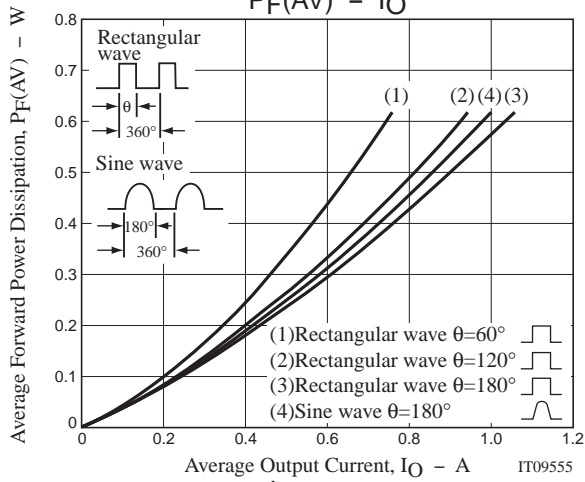
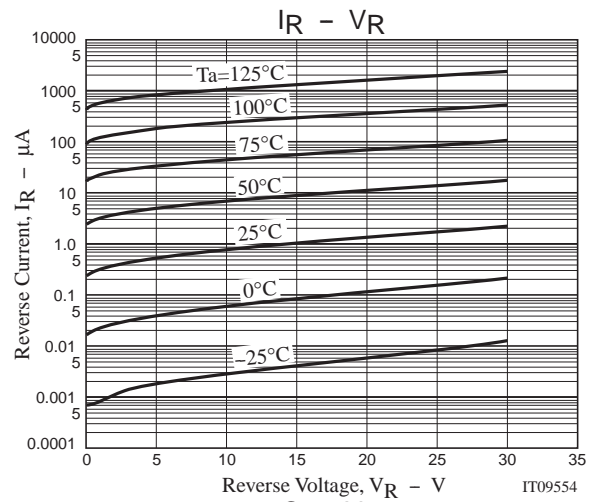
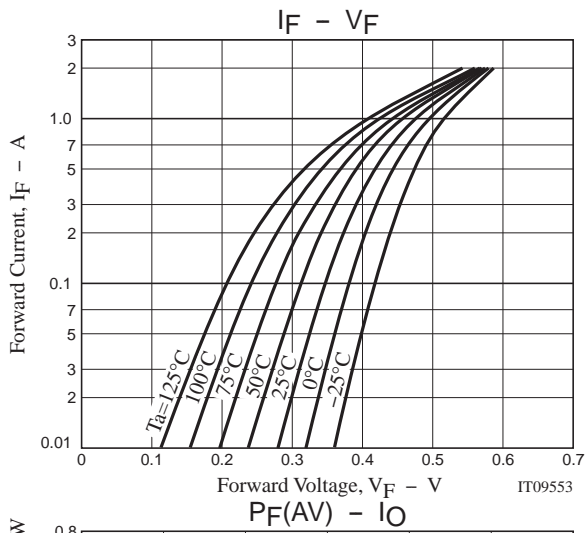
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.5mA$	30			V
Forward Voltage	V_{F1}	$I_F=0.7A$		0.45	0.50	V
	V_{F2}	$I_F=1.0A$		0.48	0.53	V
Reverse Current	I_R	$V_R=16V$			15	μA
Interterminal Capacitance	C	$V_R=10V, f=1MHz$		27		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100mA$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)1}$	When mounted in Cu-foiled area of 0.72mm ² ×0.03mm on glass epoxy substrate		94.7		°C / W
	$R_{th(j-a)2}$	When mounted on ceramic substrate (500mm ² ×0.8mm)		67.7		°C / W

t_{rr} Test Circuit

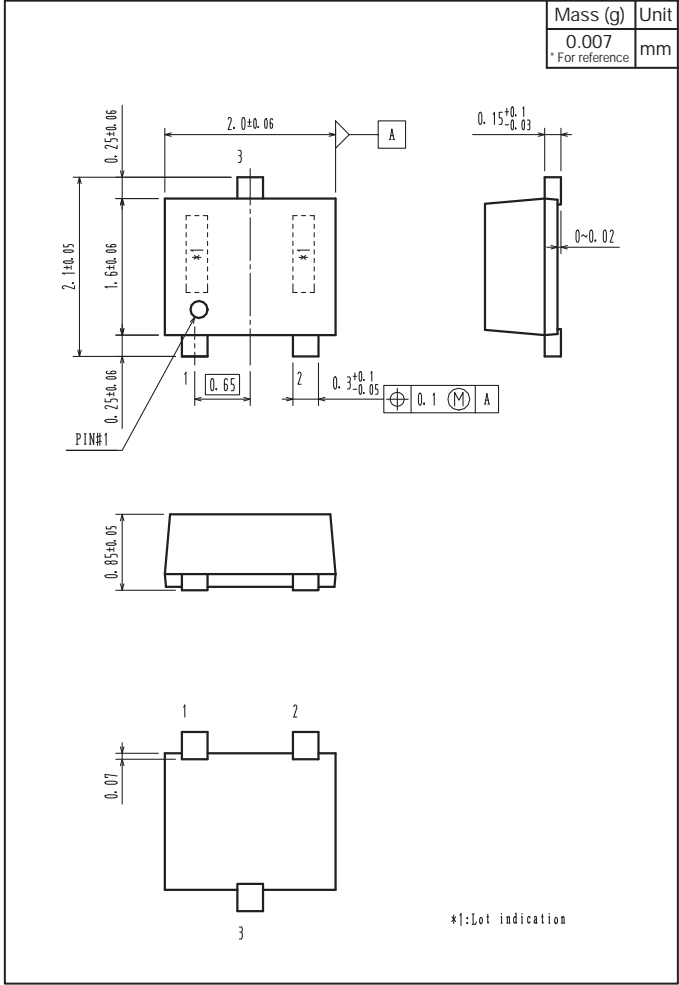


Ordering Information

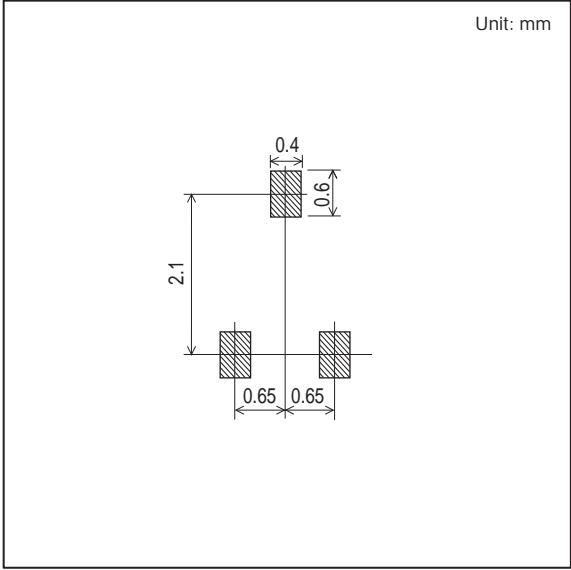
Device	Package	Shipping	memo
SB1003M3-TL-E	MCPH3	3,000pcs./reel	Pb Free



Outline Drawing
SB1003M3-TL-E



Land Pattern Example



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