MTB1100

Product profile

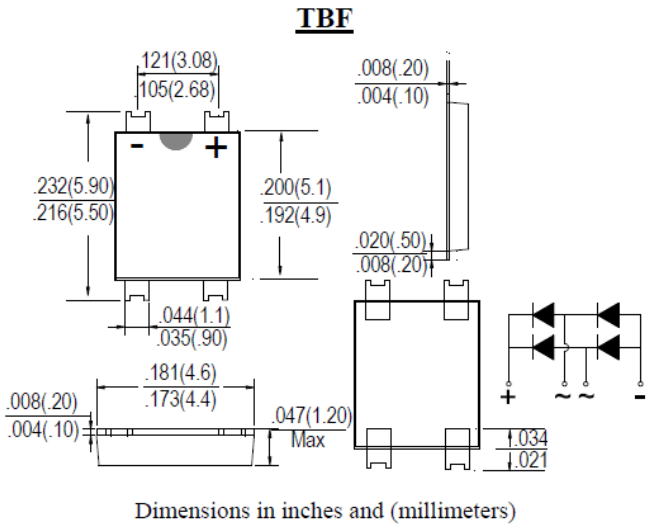
Single Phase Ultra Low VF Schottky Bridge Rectifier

General description

Schottky Rectifiers 1 Amp 100V

Features

- Ideal for printed circuit board.
- High current capability
- Reliable low cost construction utilizing molded plastic technique.
- Low forward voltage drop
- Low power loss, high efficiency
- High surge current capability
- High temperature soldering guaranteed 260°C /10sec/0.375" lead length at 5 lbs tension
- Small size, simple installation.



Dimensions in inches and (millimeters)

Mechanical data

Case: Molded plastic

Epoxy: UL 94V-0 rate flame retardant

Lead: MIL-STD- 202E, Method 208 guaranteed

Polarity: As marked

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	MTB1100	Unit
Maximum repetitive peak reverse voltage	VRRM	100	V
RMS Voltage (Max.)	VRMS	85	V
Working peak reverse voltage	VRWM	100	V
Maximum average forward rectified current Total Device	IF(AV)	1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50	A
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	75	°C/W

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

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Electrical characteristics (Tc=25°C unless otherwise noted)

OFF CHARACTERISTICS

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=1A, Tj=25°C at IF=1A, Tj=125°C	VF	 0.70 0.55	 0.77 0.61	V
Maximum reverse current Tj=25°C	IR	10		u'A
at working peak reverse voltage Tj=125°C		1.0		m'A
Junction Capacitance @ DC 5V	CJ	100		pF

DEVICE MARK

MTB1100

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■ Characteristic Curves

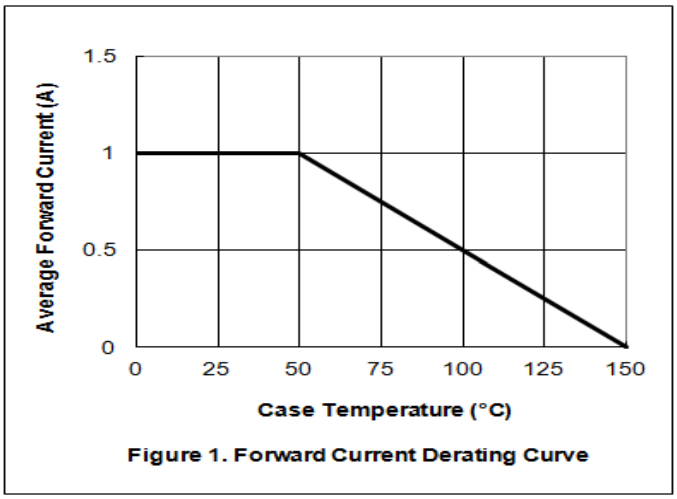

Figure 1. Forward Current Derating Curve

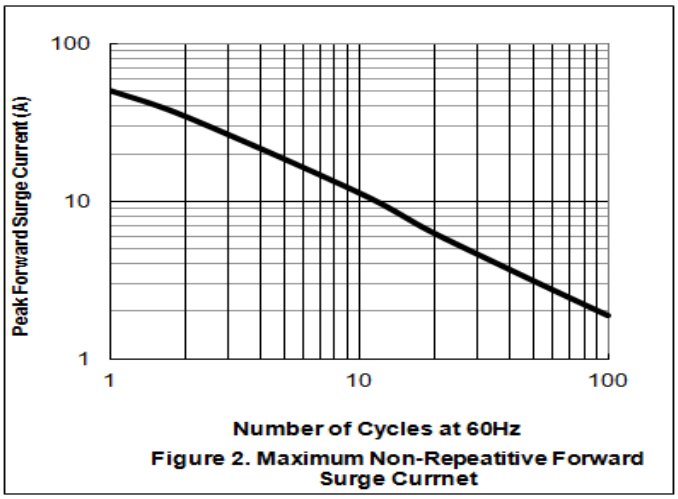

Figure 2. Maximum Non-Repeatitive Forward Surge Currnet

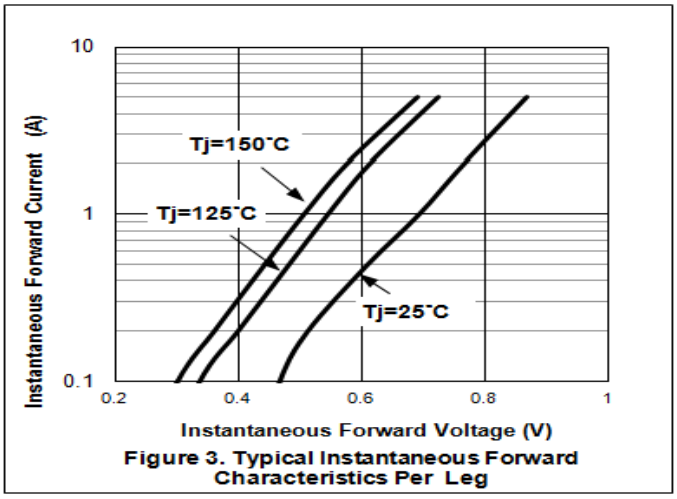

Figure 3. Typical Instantaneous Forward Characteristics Per Leg

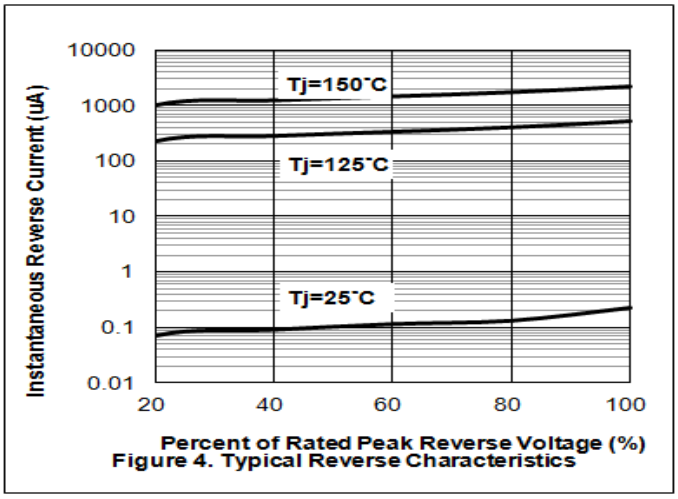

Figure 4. Typical Reverse Characteristics

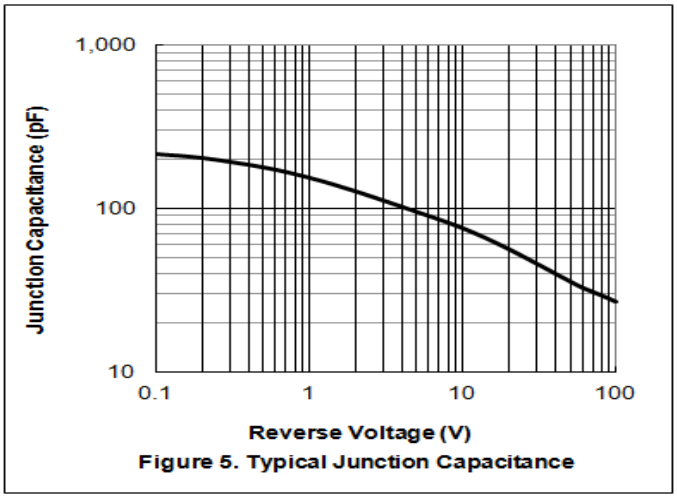

Figure 5. Typical Junction Capacitance

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