



Schottky Barrier Rectifier

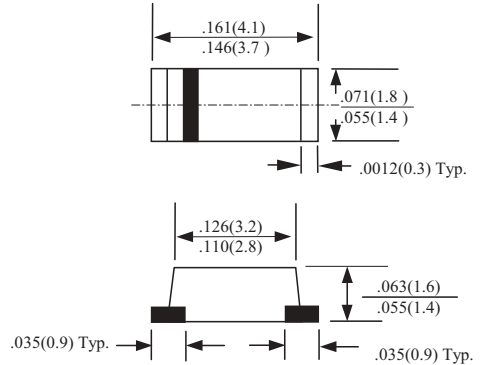
Features

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic material used carries underwriters Laboratory classification 94 V-0
- Extremely low Vf
- Majority carrier conduction
- High temperature soldering : 250°C/10 seconds at terminals

Mechanical Data

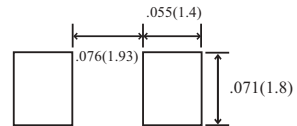
- Case : molded plastic, JEDEC SOD-123 / mini SMA
- Terminals : solder plated, solderable per MIL-STD-750, method 2026
- Mounting position : Any
- Weight : 0.04 grams

SOD-123



Dimensions In Inches And (Millimeters)

Mounting Pad Layout



Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	MBR0520	MBR0530	MBR0540	MBR0550	MBR0560	Units	
Device marking code		12	13	14	15	16	V	
Maximum repetitive peak reverse voltage	VRRM	20	30	40	50	60	V	
Maximum RMS voltage	VRMS	14	21	28	35	42	V	
Maximum DC blocking voltage	VDC	20	30	40	50	60	V	
Maximum average forward rectified current at TL (See Fig.1)	IF(AV)	1.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30						A
Typical thermal resistance	RθJA	98						°C/W
Typical junction Capacitance ⁽²⁾	Cj	120						pF
Operating junction and storage temperature range	TJ	-55 to +125						°C
Storage temperature range	TSTG	-55 to +150						°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 1.0A ⁽¹⁾	V _F	0.55	0.70			V
Maximum DC reverse current at rated DC blocking voltage T _A =25°C	I _R	1.0				μA

Note: (1) Pulse test : 300μs pulse width, 1% duty cycle
 (2) Measured at 1.0MHz and applied reverse voltage of 4.0V



Ratings And Characteristic Curve $T_A = 25^\circ\text{C}$, unless otherwise specified

Fig. 1 - Forward Current Derating Curve

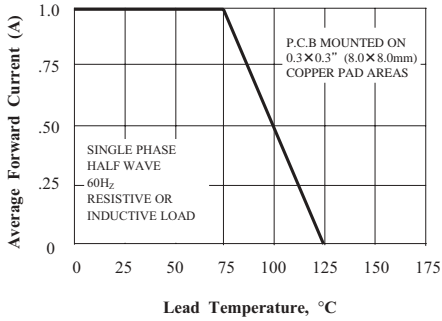


Fig. 2 - Typical Instantaneous Forward Characteristics

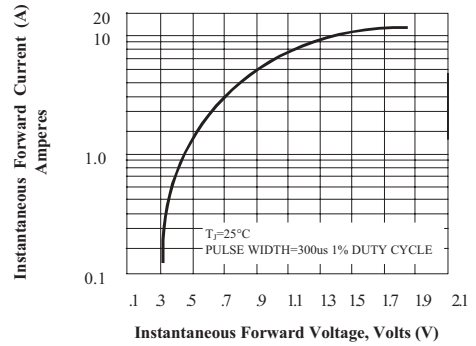


Fig. 3 - Typical Reverse Characteristics

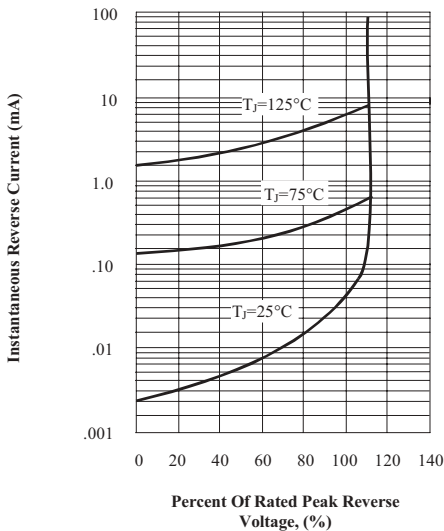


Fig. 4 - Maximum non-repetitive Surge Current

