

Schottky Barrier Rectifier

1A High Voltage

multicomp^{PRO}

RoHS
Compliant



Features

- Metal silicon junction, majority carrier conduction
- High forward surge current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C @ 10s
- Robust guarding for over voltage protection
- Halogen-free

Mechanical Data

Case	: SMA molded plastic
Molding compound	: UL flammability classification rating 94V-0
Terminals	: Matte tin plated leads; solderable per J-STD-002 and JESD22-B102
Polarity	: Colour band denotes cathode end

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Values	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
RMS Reverse Voltage	V_{RMS}	70	
DC Blocking Voltage	V_{DC}	100	
Maximum Average Forward Output Current	I_{F_AV}	1	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	35	

Thermal Characteristics

Parameter	Symbol	Values
Typical Thermal Resistance*	$R_{\theta JA}$	70°C/W
	$R_{\theta JC}$	25°C/W
	$R_{\theta JL}$	30°C/W
Operating Junction Temperature Range	T_J	-55°C to +150°C
Storage Temperature Range	T_{STG}	-55°C to +150°C

Note *: Device mounted on P.C.B. with 10mm × 20mm × 0.1mm copper pad area

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Characteristic	Symbol	Test Conditions	Max.	Unit	
Maximum Instantaneous Forward Voltage*	V_F	$I_F = 1\text{A}$ @ $T_A = 25^\circ\text{C}$	0.8	V	
Maximum Reverse Current**	I_R	Rated V_R	@ $T_J = 25^\circ\text{C}$	250	μA
			@ $T_J = 100^\circ\text{C}$	10	mA

Note*: Pulse test: 300 μs pulse width, 1% duty cycle

Note**: Pulse test: Pulse width 40ms

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Ratings and Characteristic Curves

(@ TA = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

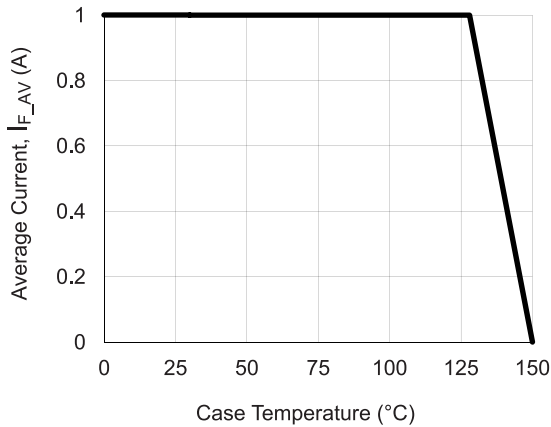


Fig.2 Surge Current Derating Curve

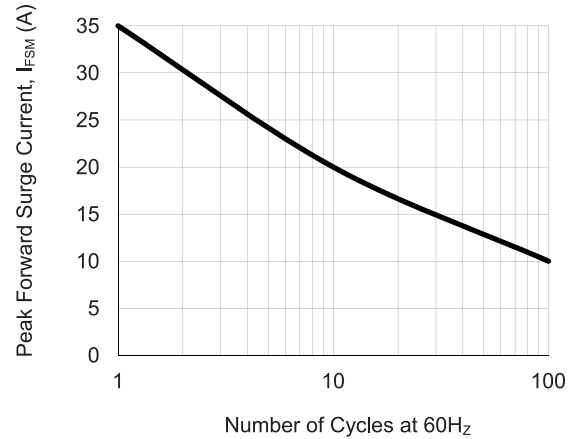


Fig.3 Typical Forward Voltage Characteristics

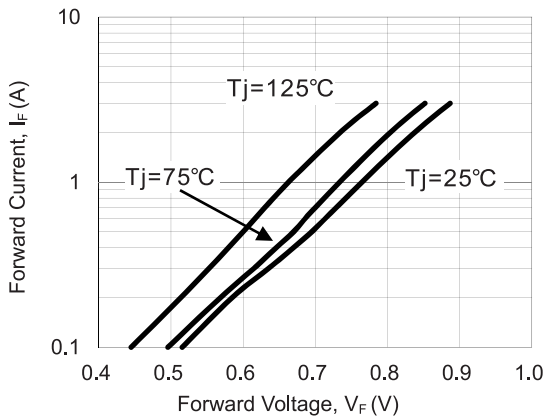
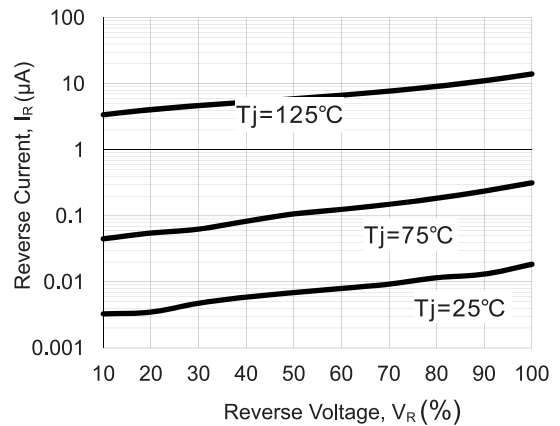
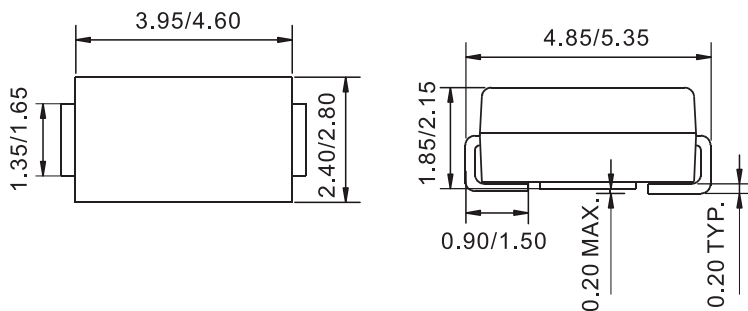


Fig.4 Typical Reverse Characteristics



Package Outline Dimensions:



Dimensions : Millimetres

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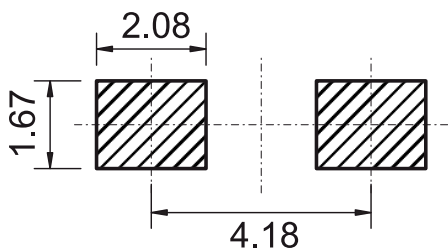
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Mounting Pad Layout



Part Number Table

Description	Part Number
Schottky Barrier Rectifier, 1A, 100V, SMA	B1100-13-F

Dimensions : Millimetres

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