

Surface Mount Low VF Schottky Barrier Rectifier 100V Current 3A

FEATURES AND BENEFITS

- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

MECHANICAL DATA

- Epoxy: UL94 V-0 rated flame retardant
- Case: SMAF Package
- Terminals: Matte Tin annealed over copper
- Weight:



SMAF

Primary Characteristic	
I_o	3A
V_{RRM}	100V
I_{FSM}	75A
V_F Typical=1A $T_J=125^\circ\text{C}$	0.35V
T_{jmax}	150°C

Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	100		V
Working Peak Reverse Voltage			V _{RWM}	100		V
DC Blocking Voltage			V _{DC}	100		V
RMS Reverse Voltage			V _{RMS}	70		V
Average Forward Rectified Current (per diode)			I _o	3		Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)			I _{FSM}	75		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ⁽¹⁾	IF=1A	Ta=25°C	V _F	0.44		V
	IF=3A	Ta=25°C	V _F	0.56	0.68	V
	IF=1A	Ta=125°C	V _F	0.35		V
	IF=3A	Ta=125°C	V _F	0.50		V
Reverse Current ⁽²⁾	VR=100V	Ta=25°C	I _R	5	50	μA
	VR=100V	Ta=125°C	I _R	5	10	mA

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

Notes (2): Pulse width $\leq 40\text{ms}$

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)			
Characteristics	Symbol	Value	Unit
Typical Thermal Resistance, junction to Lead	$R_{\theta JC}$	30	$^\circ\text{C/W}$
Operating Temperature Range (in DC Mode)	T_J	-65 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^\circ\text{C}$

Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

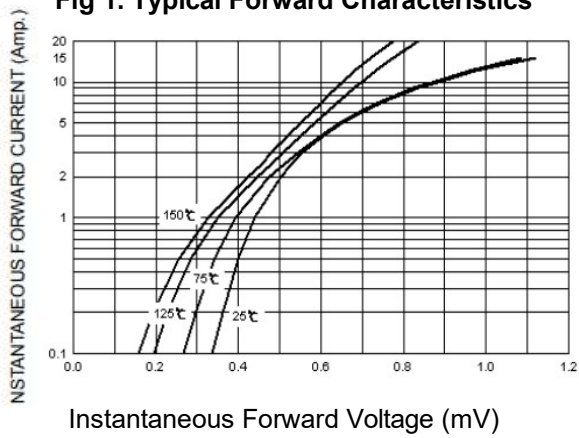


Fig 2. Typical Reverse Characteristics

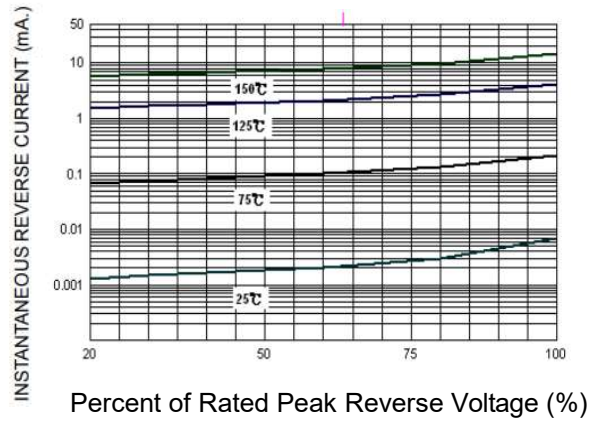


Fig 3. Forward Current Derating Curve

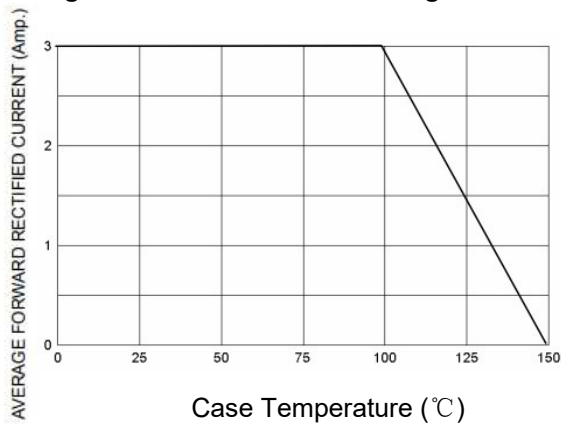
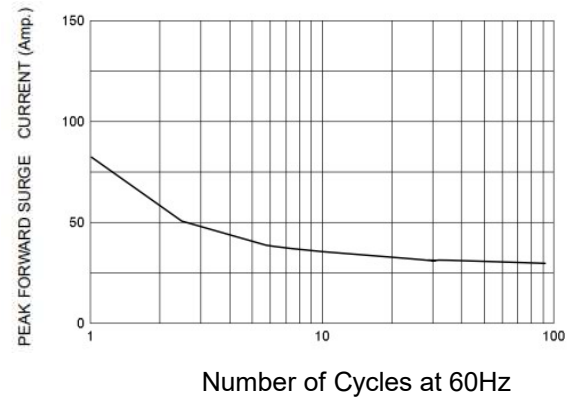
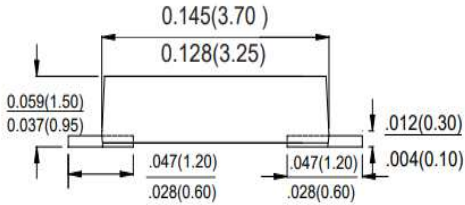
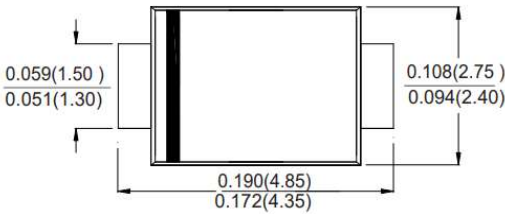


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)



Marking Information

