Surface Mount Low VF Schottky Barrier Rectifier 60V Current 5A

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	5A
V_{RRM}	60V
I_{FSM}	75A
V_F Typical=1.5A T_J =125°C	0.30V
T_{jmax}	150°C

Maximum Ratings (Ta=25°C unless otherwise specified)			
Characteristics	**Symbol**	**Value**	**Unit**
Peak Repetitive Reverse Voltage	V_{RRM}	60	V
Working Peak Reverse Voltage	V_{RWM}	60	V
DC Blocking Voltage	V_{DC}	60	V
RMS Reverse Voltage	V_{RMS}	42	V
Average Forward Rectified Current (per diode)	I_O	5	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=1.5A	Ta=25°C	V_F	0.36		V
	IF=5A	Ta=25°C	V_F	0.46	0.52	V
	IF=1.5A	Ta=125°C	V_F	0.30		V
	IF=5A	Ta=125°C	V_F	0.42		V
Reverse Current(2)	VR=60V	Ta=25°C	I_R	30	200	μA
	VR=60V	Ta=125°C	I_R		15	mA

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

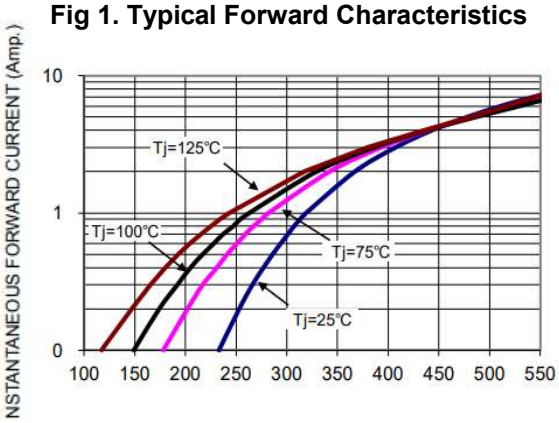
Notes (2): Pulse width $\leq_{40ms}$

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

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

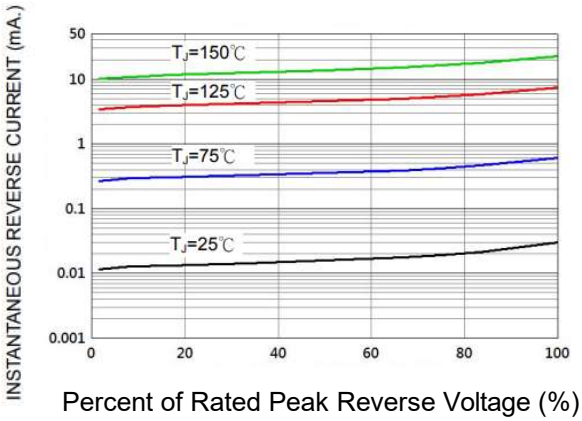
RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics



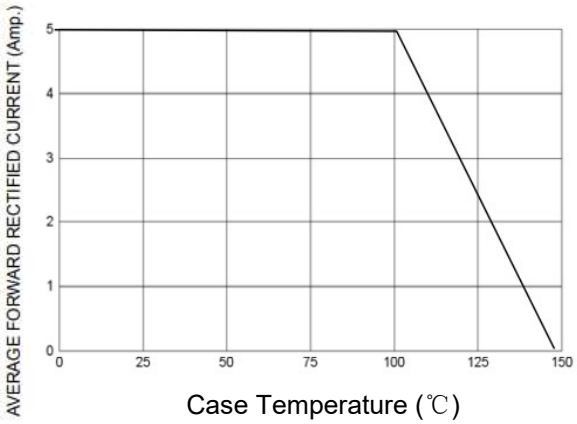
Instantaneous Forward Voltage (mV)

Fig 2. Typical Reverse Characteristics



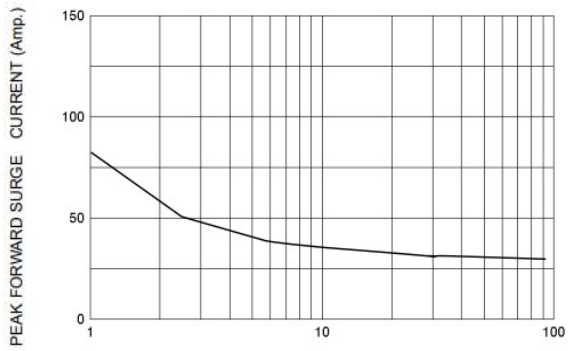
Percent of Rated Peak Reverse Voltage (%)

Fig 3. Forward Current Derating Curve



Case Temperature (℃)

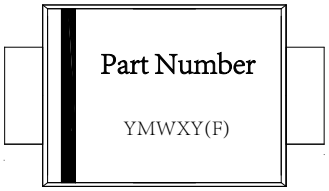
Fig 4. Non-repetitive Forward Surge Current



Number of Cycles at 60Hz

Package Outline Dimensions (in millimeters)

Marking Information



= Part Number Marking Code

=Product Tracking Code