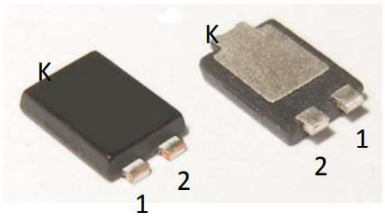
Surface Mount Low VF Schottky Barrier Rectifier 60V Current 10A

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: TO-277 Package
- Terminals: Matte Tin annealed over copper
- Weight:



TO-277

Primary Characteristic	
I_O	10A
V_{RRM}	60V
I_{FSM}	200A
V_F Typical=3A 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	10	Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200	Amps

Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			**Symbol**	**Typ.**	**Max.**	**Unit**
Forward Voltage Drop(1)	IF=3A	Ta=25°C	V_F	0.37		V
	IF=10A	Ta=25°C	V_F	0.52	0.55	V
	IF=3A	Ta=125°C	V_F	0.30		V
	IF=10A	Ta=125°C	V_F	0.50		V
Reverse Current(2)	VR=60V	Ta=25°C	I_R	90	200	μA
	VR=60V	Ta=125°C	I_R		45	mA

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

Notes (2): Pulse width ≦40ms

THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)			
Characteristics	**Symbol**	**Value**	**Unit**
Typical Thermal Resistance, junction to Ambient	$R_{\theta JA}$	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

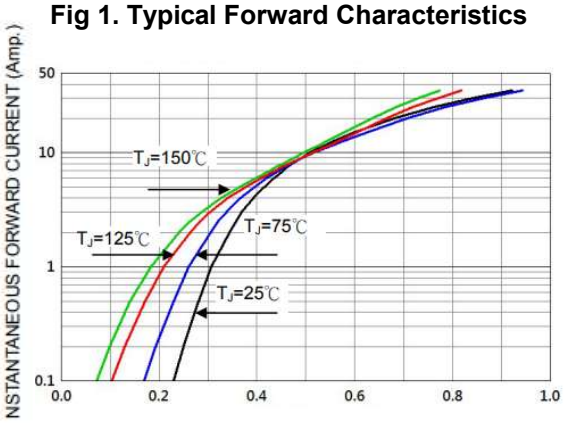


Fig 2. Typical Reverse Characteristics

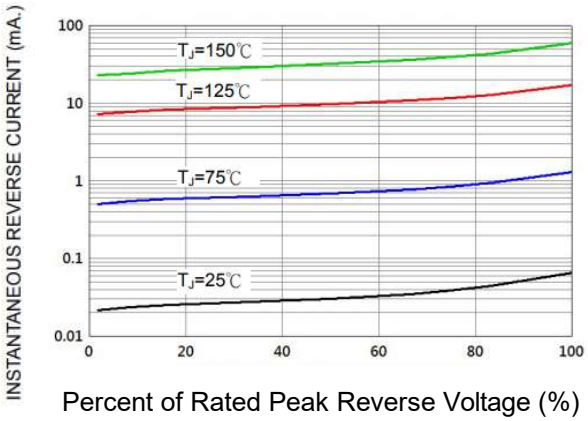


Fig 3. Forward Current Derating Curve

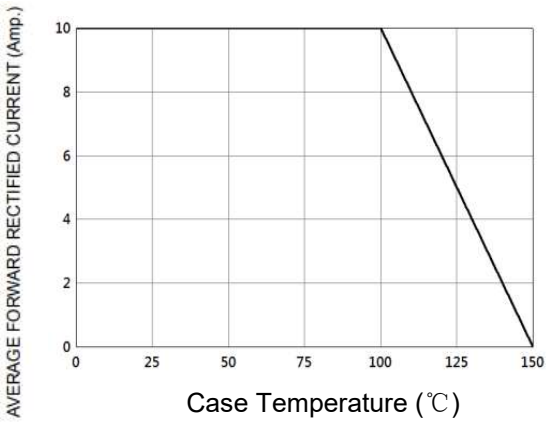
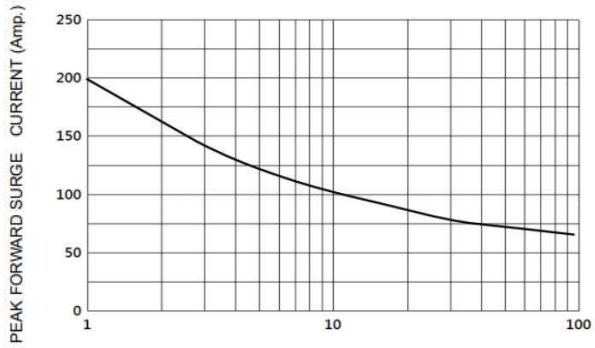
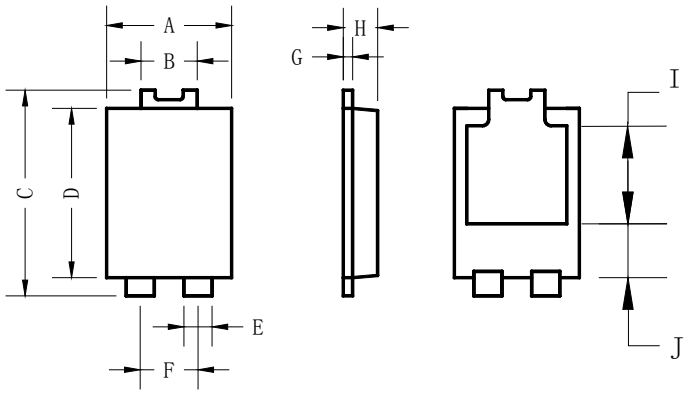


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)



TO-277		
Dim	Min(mm)	Max(mm)
A	3.83	4.13
B	1.70	1.90
C	6.30	6.70
D	5.28	5.50
E	0.80	1.00
F	1.76	1.96
G	0.25	0.35
H	0.95	1.25
I	3.39	3.69
J	1.44	1.84

Marking Information