

Surface Mount Schottky Barrier Rectifier 40V Current 1A

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: SOD-123FL Package
- Terminals: Matte Tin annealed over copper
- Weight:



Primary Characteristic	
I_o	1A
V_{RRM}	40V
I_{FSM}	30A
V_F Typical=1A $T_J=25^{\circ}C$	0.50V
T_{jmax}	150°C

Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			VRRM	40		V
Working Peak Reverse Voltage			VRWM	40		V
DC Blocking Voltage			VDC	40		V
RMS Reverse Voltage			VRMS	28		V
Average Forward Rectified Current (per diode)			Io	1		Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)			IFSM	30		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ⁽¹⁾						V
	IF=1A	Ta=25°C	VF	0.50	0.55	V
	IF=1A	Ta=125°C	VF		0.45	V
						V
Reverse Current ⁽²⁾	VR=100V	Ta=25°C	IR		100	μA
	VR=100V	Ta=125°C	IR		30	mA

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

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

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

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

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

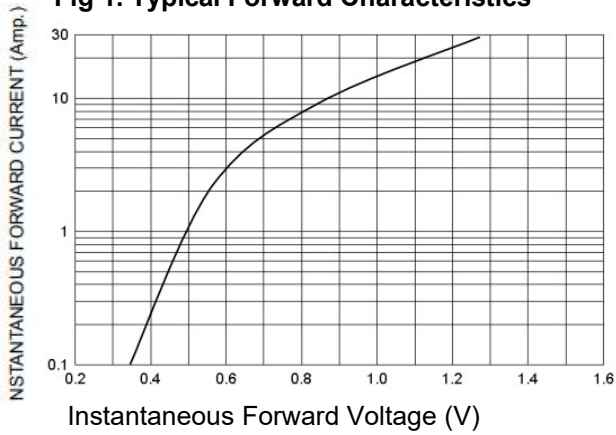


Fig 2. Typical Reverse Characteristics

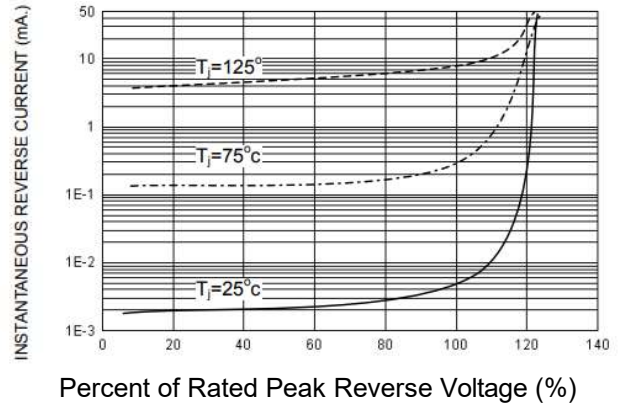


Fig 3. Forward Current Derating Curve

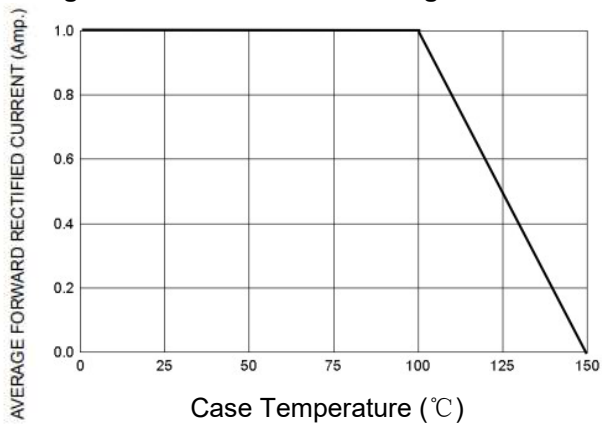
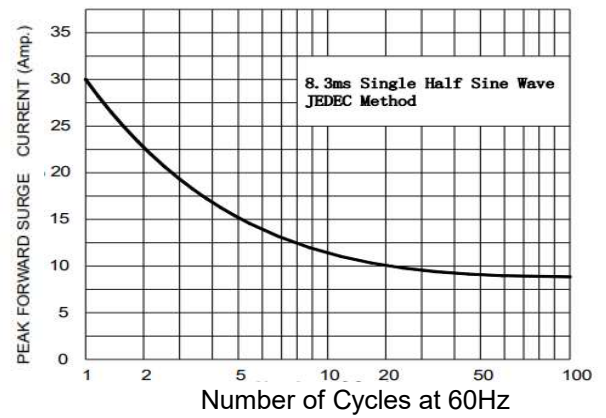
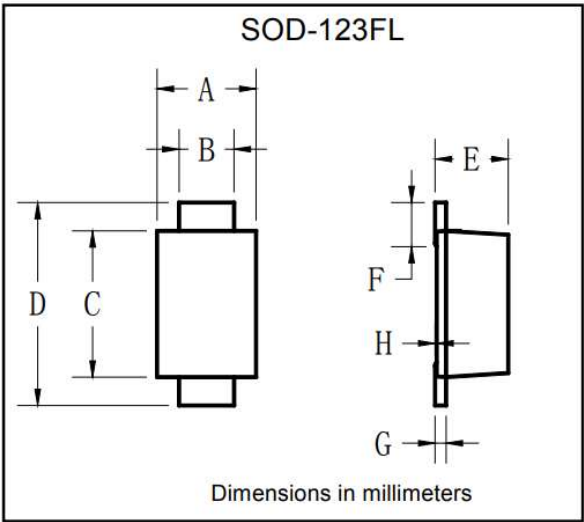


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

SOD-123FL		
Dim	Min	Max
A	1.38	1.95
B	0.50	1.10
C	2.50	2.90
D	3.50	3.90
E	0.80	1.33
F	0.25	0.90
G	0.10	0.25
H	0.02	0.05



Marking Information

