

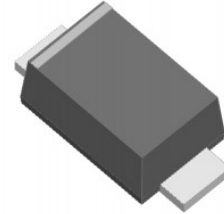
Surface Mount Schottky Barrier Rectifier 60V Current 3A

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: SOD123FL Package
- Terminals: Matte Tin annealed over copper
- Weight:



Primary Characteristic	
I_o	3A
V_{RRM}	60V
I_{FSM}	70A
V_F Typical=3A $T_J=125^\circ\text{C}$	0.60V
T_{Jmax}	150°C

Maximum Ratings ($T_a=25^\circ\text{C}$ 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	3	Amps		
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	70	Amps		
Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ⁽¹⁾	$I_F=1\text{A}$	$T_a=25^\circ\text{C}$	V_F	0.50		V
	$I_F=3\text{A}$	$T_a=25^\circ\text{C}$	V_F	0.65	0.70	V
	$I_F=1\text{A}$	$T_a=125^\circ\text{C}$	V_F	0.42		V
	$I_F=3\text{A}$	$T_a=125^\circ\text{C}$	V_F	0.60		V
Reverse Current ⁽²⁾	$V_R=60\text{V}$	$T_a=25^\circ\text{C}$	I_R		100	μA
	$V_R=60\text{V}$	$T_a=125^\circ\text{C}$	I_R		30	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		$R_{\theta JC}$	25	$^\circ\text{C/W}$
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

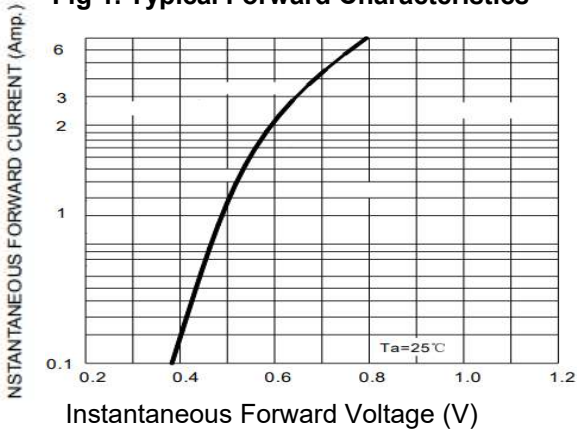


Fig 2. Typical Reverse Characteristics

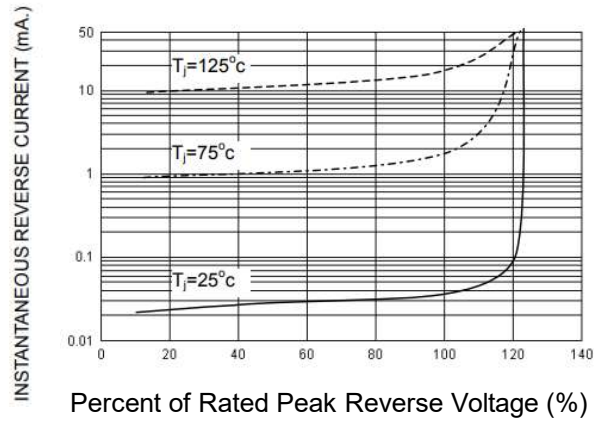


Fig 3. Forward Current Derating Curve

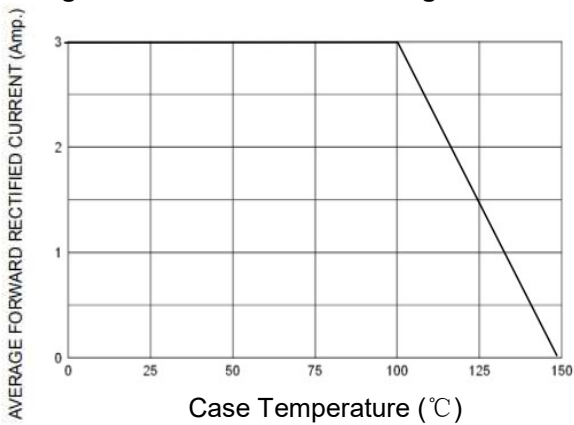
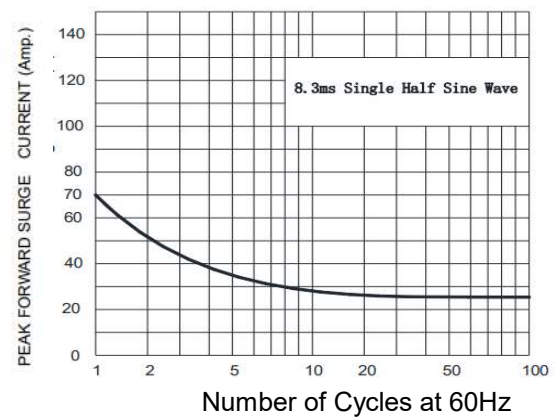
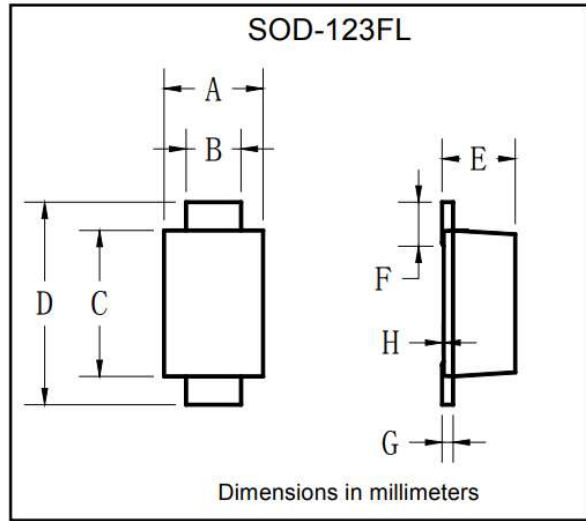


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

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

