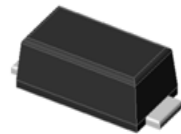


Schottky Barrier Rectifier in SOD-123FL

Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21 definition



Applications

For use of fast switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Absolute Maximum Ratings				
Ratings at 25 °C, ambient temperature unless otherwise specified				
Parameter	Symbol	SS215FL	SS220FL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	150	200	V
Maximum RMS voltage	V_{RMS}	105	140	V
Maximum DC blocking voltage	V_{DC}	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	2.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40		A
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150		°C

Electrical Characteristics					
(T _A = 25 °C unless otherwise specified)					
Parameter	Test Conditions	Symbol	SS215FL	SS220FL	Unit
Maximum instantaneous forward voltage	$I_F=2A, T_A=25^{\circ}C$	V_F	0.85	0.95	V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$	I_R	0.1		mA
	$T_A=100^{\circ}C$		2.0		
Typical junction capacitance	4.0 V, 1 MHz	C_J	80		pF

Thermal Characteristics				
Parameter	Symbol	SS215FL	SS220FL	Unit
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	95		°C/W
	$R_{\theta JC}$	45		
	$R_{\theta JI}$	20		

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0×5.0mm copper pads

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Figure 1. Forward Current Derating Curve

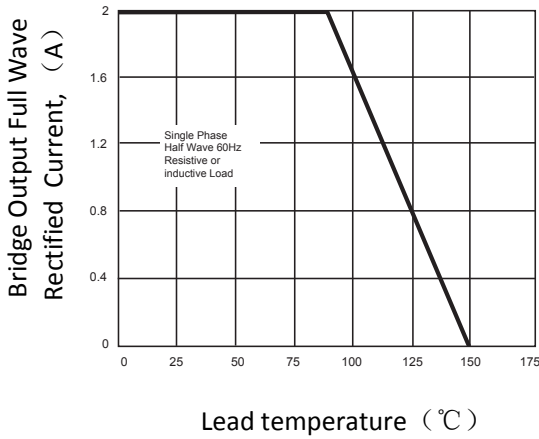


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

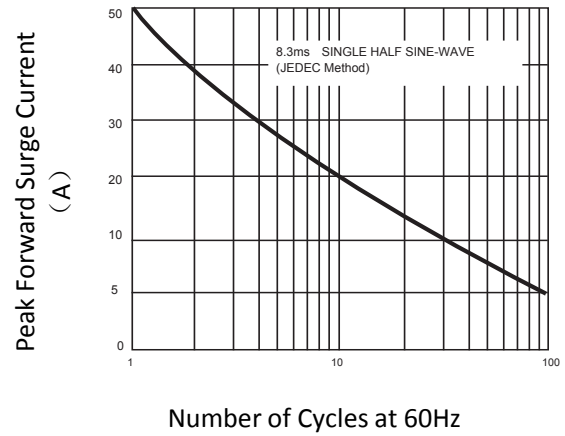


Figure 3. Typical Instantaneous Forward Characteristics

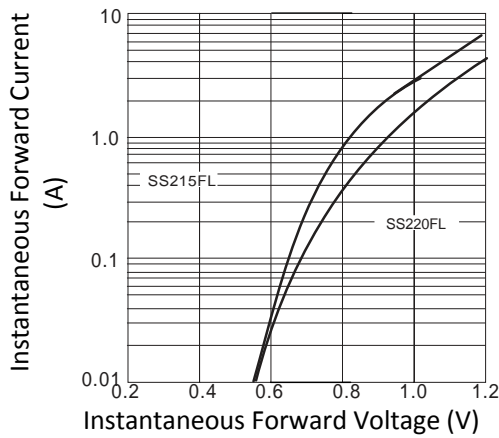


Figure 4. Typical Reverse Characteristics

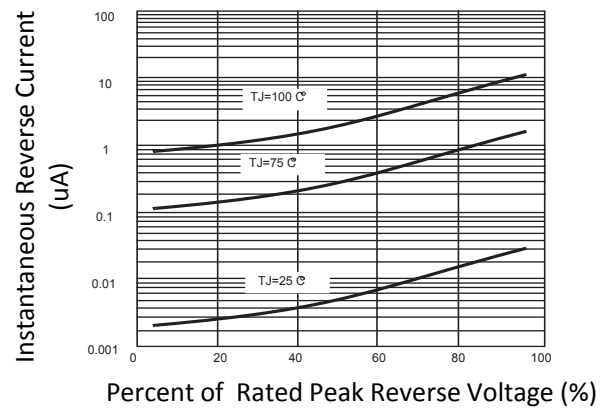
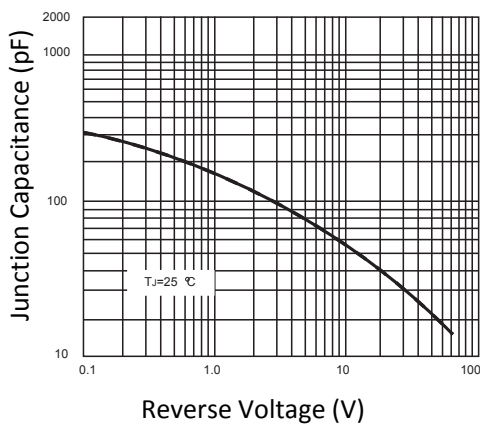
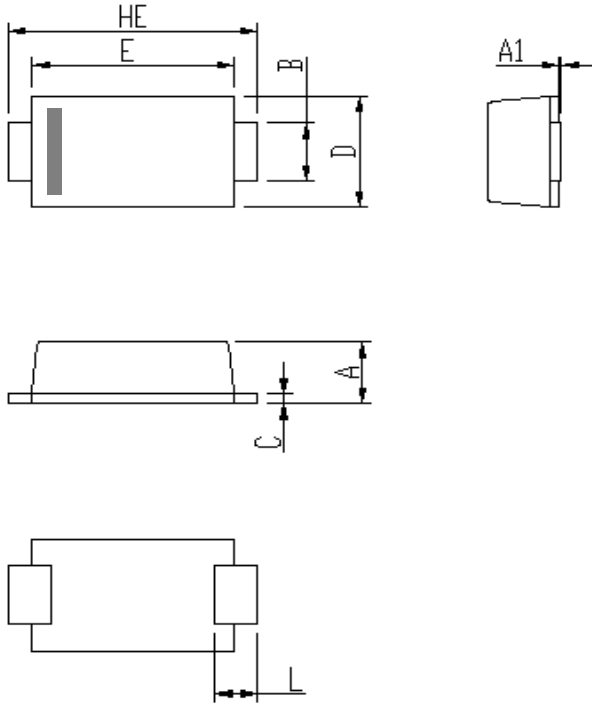


Figure 5. Typical Junction Capacitance

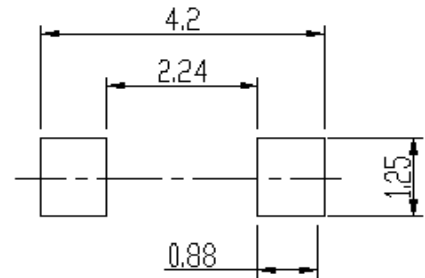


Package Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SS2xxFL	SOD-123FL	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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