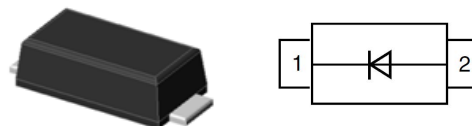


Fast Recovery Surface Mount Rectifier in SOD-123FL

Features

- For surface mounted application
- Glass passivated junction chip
- Built-in strain relief, ideal for automated placement
- Fast switching for high efficiency



Mechanical Data

- **Case:** JEDEC SOD-123FL molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	RS07A	RS07B	RS07D	RS07G	RS07J	RS07K	RS07M	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)	0.7							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25							A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	RS07A	RS07B	RS07D	RS07G	RS07J	RS07K	RS07M	Unit
Maximum instantaneous forward	1 A	V _F	1.15							Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C TA=125°C	I _R	10 50							µA
Maximum reverse recovery time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	150				250	500		nS
Typical junction capacitance	4.0 V, 1 MHz	C _J	4							pF
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	76							°C/W
	junction to case	R _{θJC}	42							
	junction to mount	R _{θJM}	7							

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB

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

Figure 1. Forward Current Derating Curve

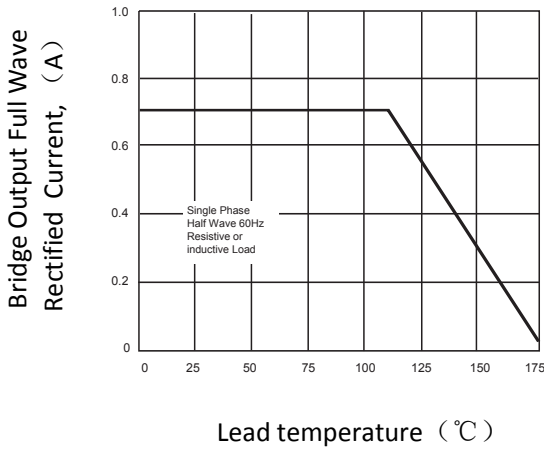


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

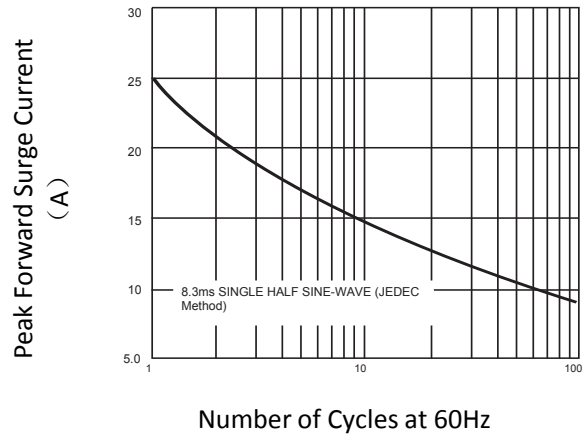


Figure 3. Typical Reverse Characteristics

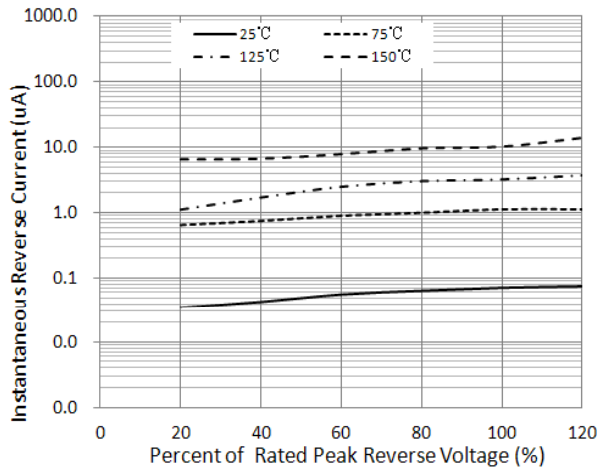


Figure 4. Typical Junction Capacitance

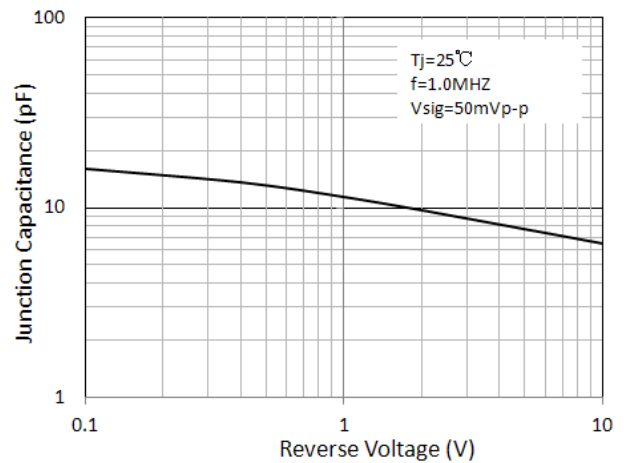
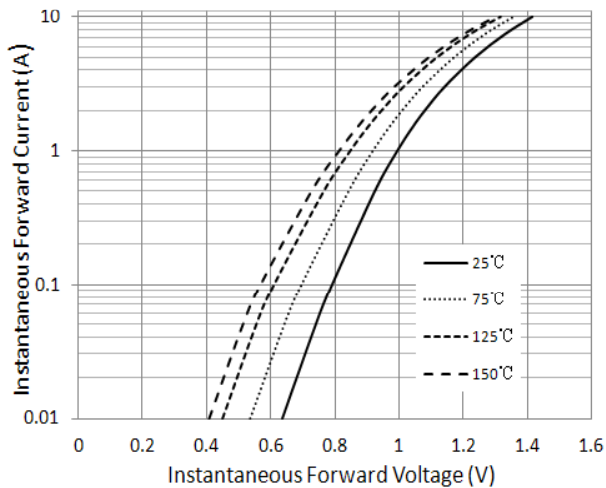
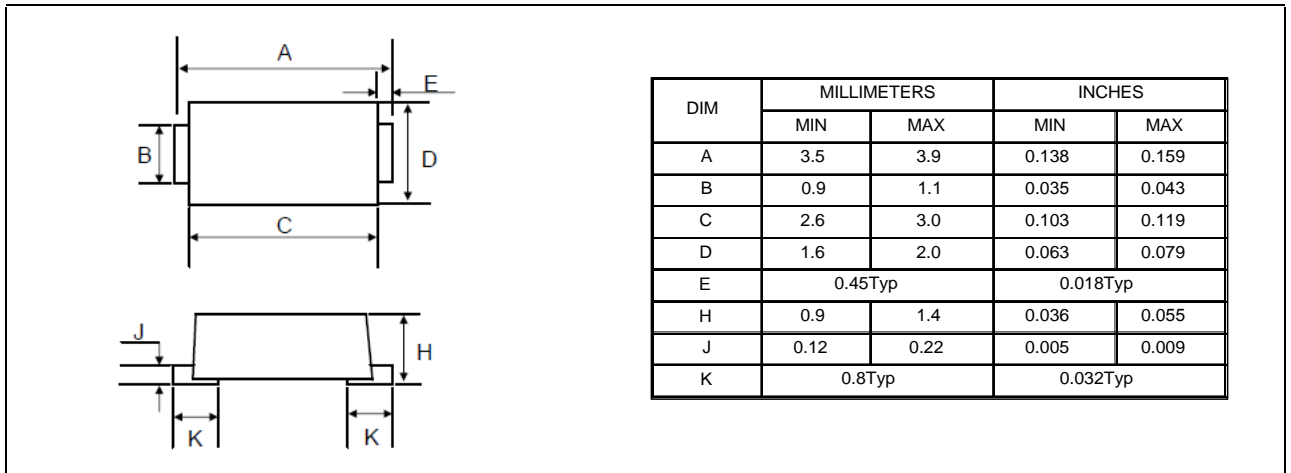


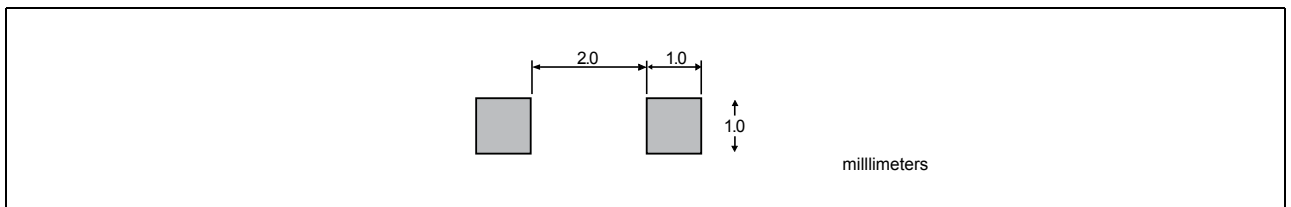
Figure 5. Typical Instantaneous Forward Characteristics



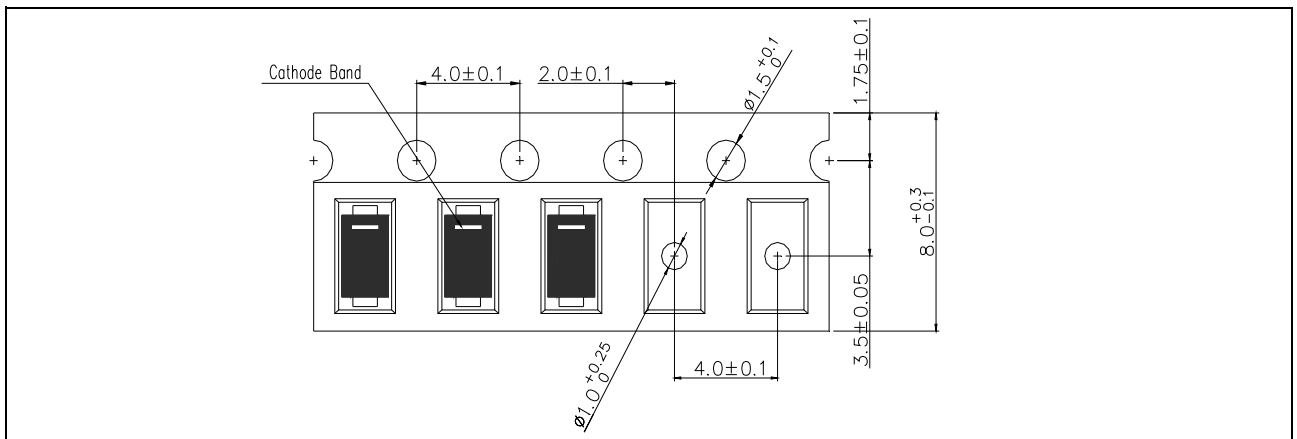
Package Dimensions



Pad Dimensions



Packing Information



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
RS07A thur RS07M	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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