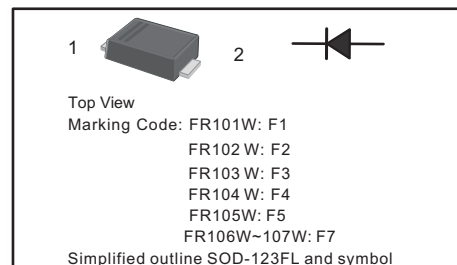


SURFACE MOUNT FAST RECOVERY RECTIFIERS

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Ideal for automated placement
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

PIN	DESCRIPTION
1	Cathode
2	Anode



MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 °C ambient temperature unless otherwise specified Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	FR101W	FR102W	FR103W	FR104W	FR105W	FR106W	FR107W	Units
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 at Ta = 65 °C	IF(AV)	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	30							A
Maximum Instantaneous Forward Voltage at 1 A	VF	1.3							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 125 °C	IR	5 100							μA
Maximum Reverse Recovery Time 1)	trr	150				250	500		ns
Typical Junction Capacitance 2)	Cj	15							pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150							°C

Notes:

1) Measured with IF = 0.5 A, IR = 1 A, Irr = 0.25 A

2) Measured at 1MHz and applied reverse voltage of 4V D.C

SURFACE MOUNT FAST RECOVERY RECTIFIERS

RATING AND CHARACTERISTIC CURVES FR101W - FR107W

Fig.1 Forward Current Derating Curve

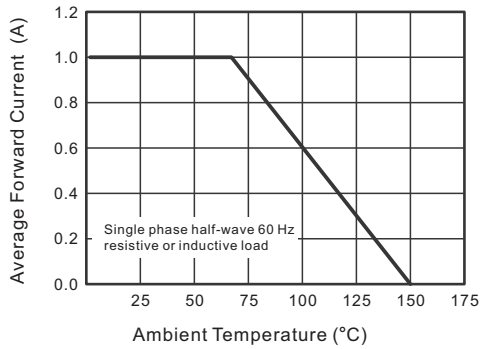


Fig.2 Typical Reverse Characteristics

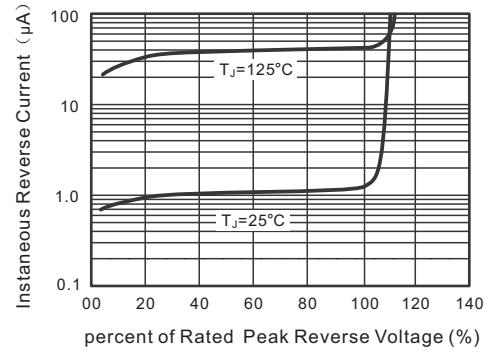


Fig.3 Typical Instantaneous Forward Characteristics

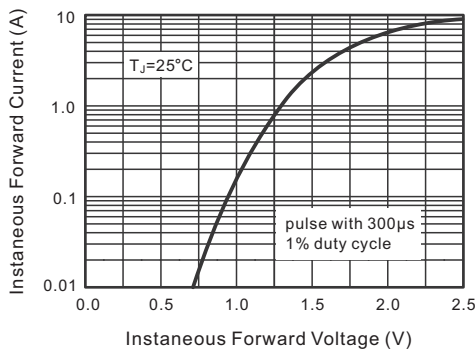


Fig.4 Typical Junction Capacitance

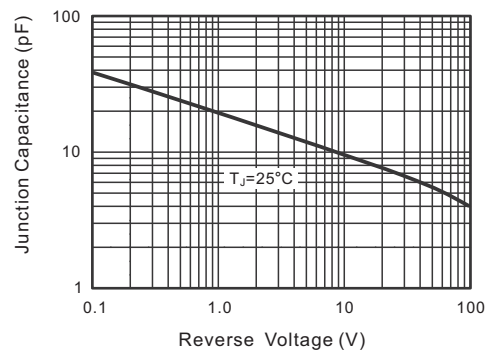
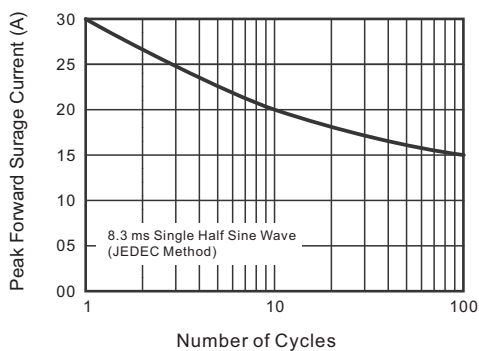


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

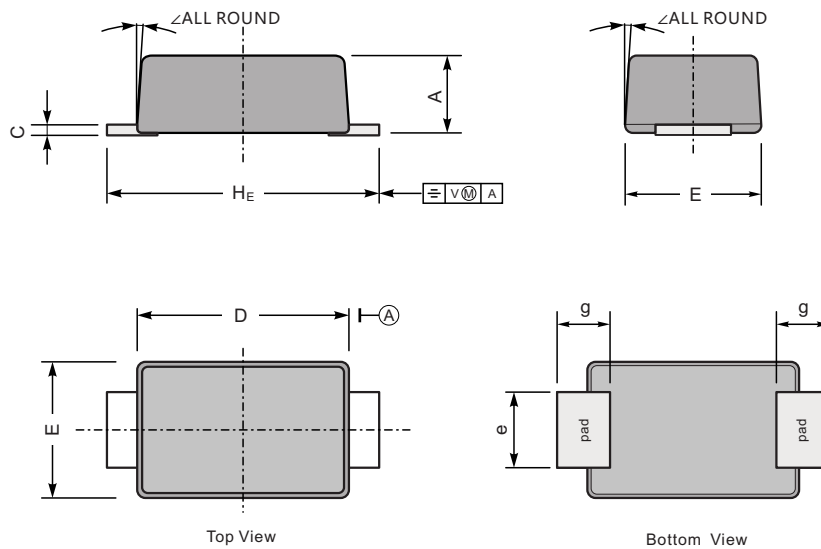


SURFACE MOUNT FAST RECOVERY RECTIFIERS

PACKAGE OUTLINE

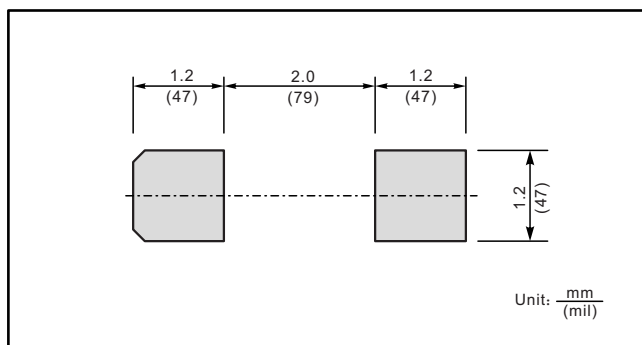
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	$\angle$
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size



Marking

Type number	Marking code
FR101W	F1
FR102W	F2
FR103W	F3
FR104W	F4
FR105W	F5
FR106W	F7
FR107W	F7

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.