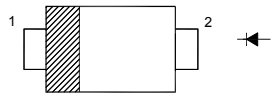
FR07BW THRU FR07MW

Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 100 to 1000 V
Forward Current - 0.7 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code:FR07BW~FR07GW: FA1
FR07JW: FB1
FR07KW~FR07MW: FC1
Simplified outline SOD-123FL and symbol

Maximum Ratings and Electrical characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	FR07BW	FR07DW	FR07GW	FR07JW	FR07KW	FR07MW	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_a = 65℃ 1)	$I_{F(AV)}$	0.7						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	20						A
Maximum Instantaneous Forward Voltage at 0.7 A	V_F	1.15						V
Maximum DC Reverse Current T_a = 25℃ at Rated DC Blocking Voltage T_a = 125℃	I_R	10 50						μA
Maximum Reverse Recovery Time 2)	t_{rr}	150			250	500		ns
Typical Thermal Resistance 3)	$R_{\theta JA}$	180						K/W
Typical Junction Capacitance 4)	C_j	4						pF
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150						℃

1) Averaged over any 20 ms period.

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

3) Thermal resistance junction to ambient, 6.0 mm^2 coppeer pads to each terminal.

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

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FIG.1 –TYPICAL FORWARD CHARACTERISTIC

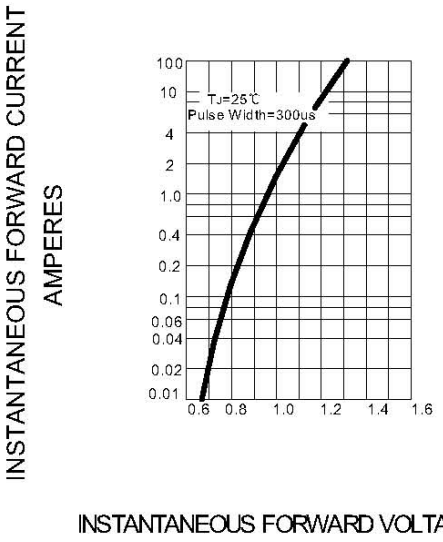


FIG.2 – TYPICAL JUNCTION CAPACITANCE

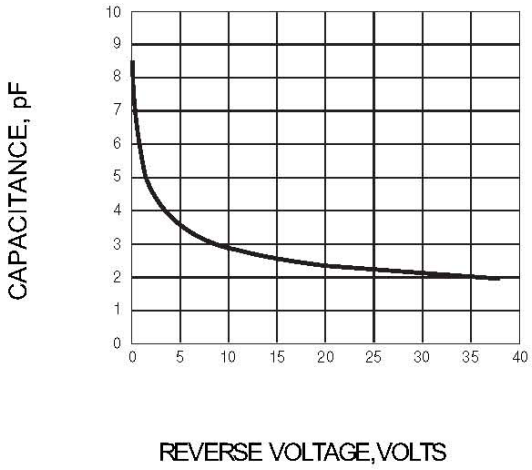


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

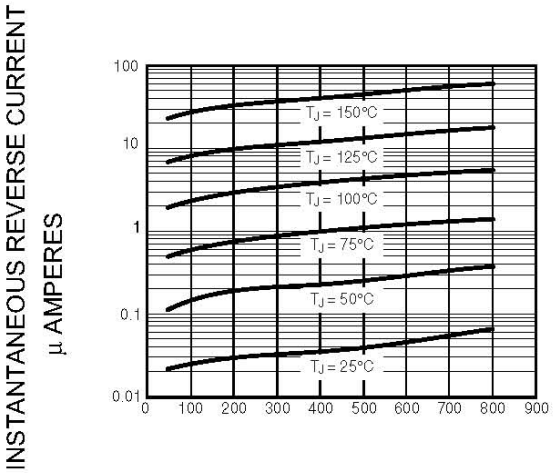
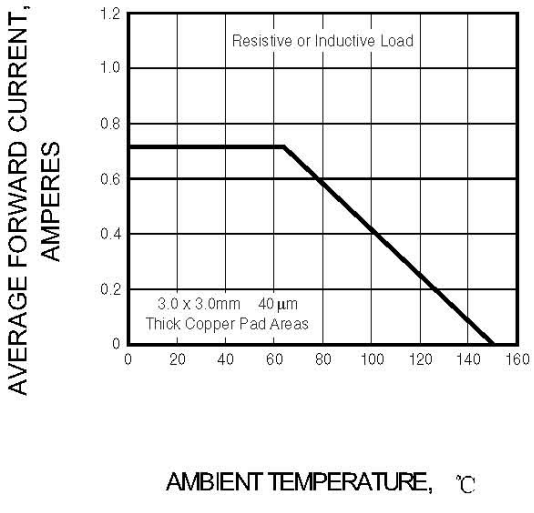


FIG.4 – FORWARD DERATING CURVE



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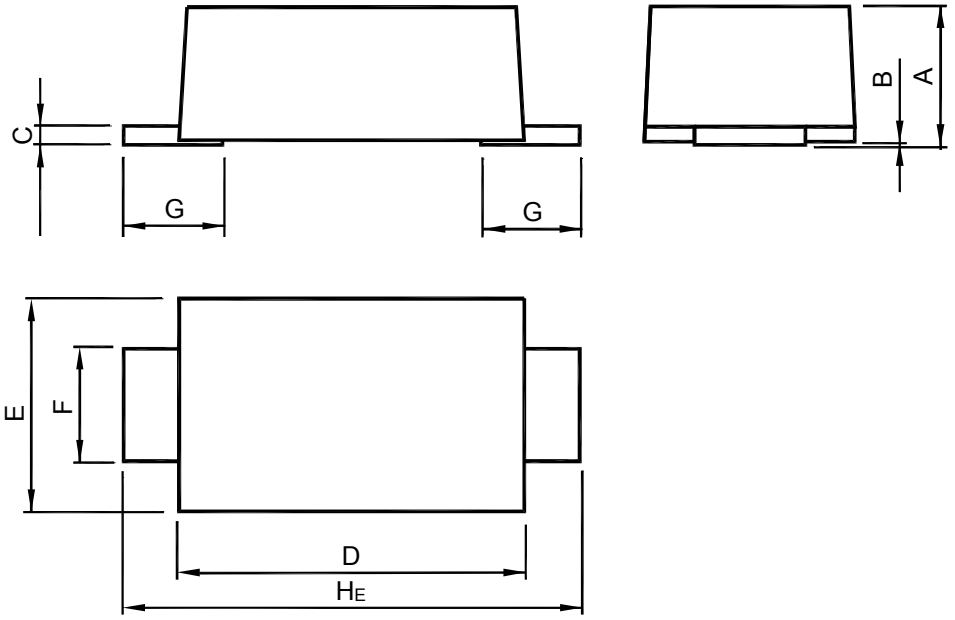
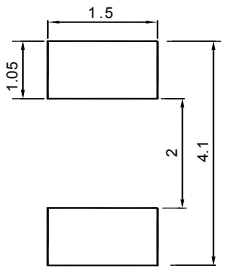
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123FL**



UNIT	A	B	C	D	E	F	G	H_E
mm	1.08 0.88	0.1 0	0.2 0.1	2.9 2.6	1.9 1.7	1.1 0.8	0.9 0.7	3.9 3.5

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-123FL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

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Dated: 16/09/2013 Rev: 01