

FR101M THRU FR107M

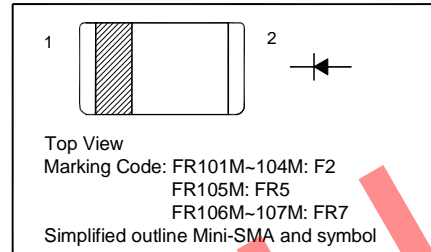
Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

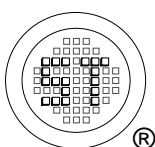
Ratings at 25 °C ambient temperature unless otherwise specified.

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

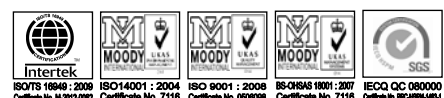
Parameter	Symbols	FR101M	FR102M	FR103M	FR104M	FR105M	FR106M	FR107M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	5 50							μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	150				250	500		ns
Typical Junction Capacitance ²⁾	C_j	15							pF
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$

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

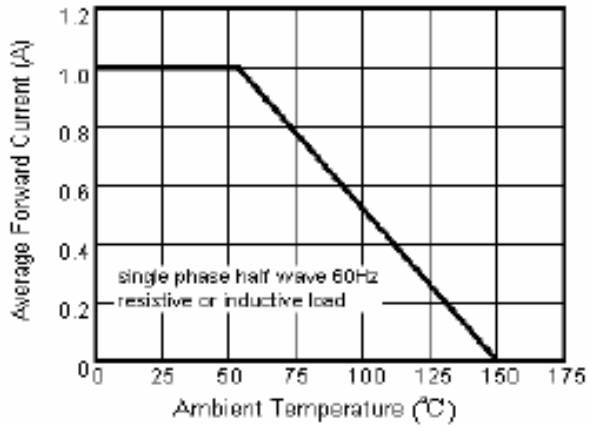


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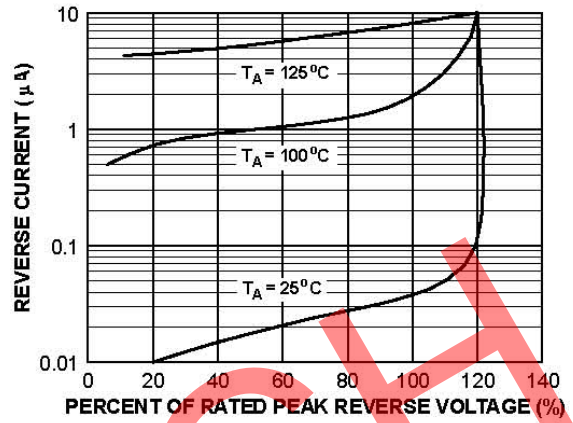


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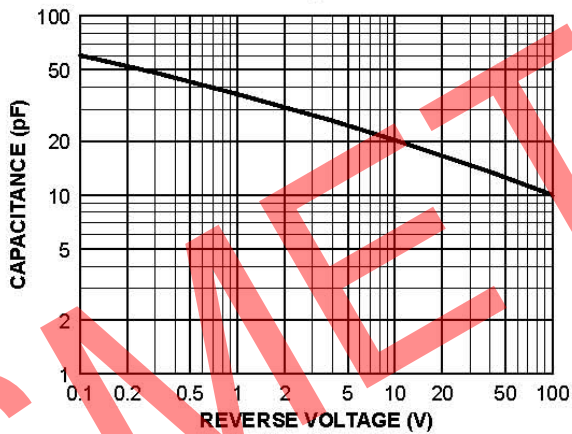
Fig.1 Forward Current Derating Curve



Reverse Characteristics



Junction Capacitance



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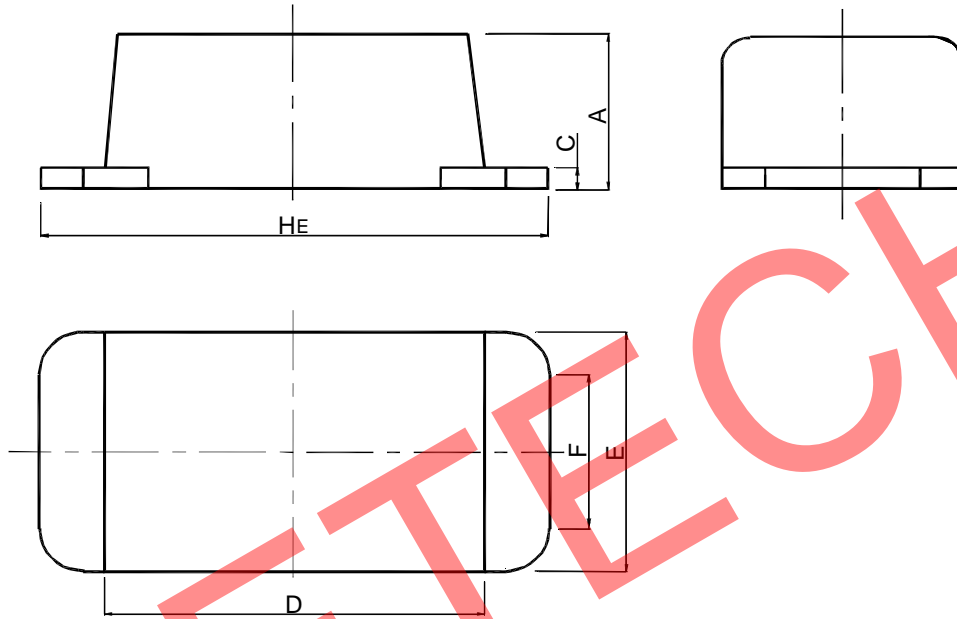


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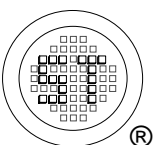
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

Mini-SMA



UNIT	A	C	D	E	F	H _E
mm	1.08	0.2	2.9	1.9	1.53	3.9
	0.88	0.1	2.6	1.7	1.43	3.5



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Dated: 28/02/2013 Rev: 03