

1F1 THRU 1F7

MINIATURE FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 V

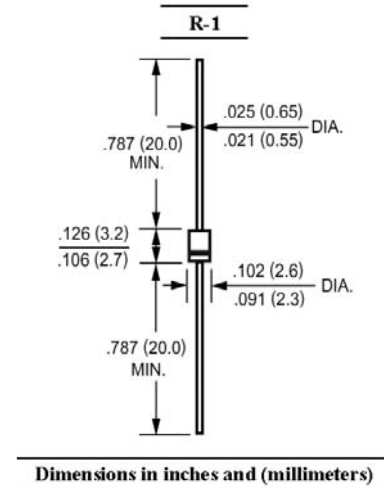
Forward Current - 1 A

Features

- High current capability
- High reliability
- Low forward voltage drop
- Low leakage
- High switching capability

Mechanical Data

- Case: Molded plastic, R-1
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: color band denotes cathode end
- Mounting Position: Any



Absolute Maximum Ratings and Characteristics

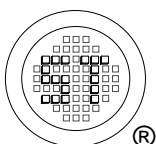
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	1F1	1F2	1F3	1F4	1F5	1F6	1F7	Units
Maximum Recurrent 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 0.375" (9.5 mm) Lead Length at $T_A = 55\text{ }^\circ\text{C}$	$I_{(AV)}$	1							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25							A
Maximum Forward Voltage at 1 A DC	V_F	1.3							V
Maximum Reverse Current $T_A = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100\text{ }^\circ\text{C}$	I_R	5 500							μA
Typical Junction Capacitance ¹⁾	C_J	12							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	67							$^\circ\text{C/W}$
Maximum Reverse Recovery Time ³⁾	t_{rr}	150			250	500		nS	
Operating and Storage Temperature Range	T_J, T_{stg}	- 55 to + 150							$^\circ\text{C}$

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

²⁾ Thermal resistance from junction to ambient 0.375" (9.5 mm) lead length P.C.B. mounted with 0.22 X 0.22" (5.5 X 5.5 mm) copper pads.

³⁾ Reverse recovery test conditions: $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$



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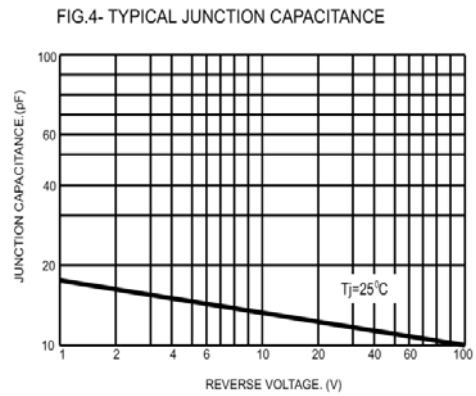
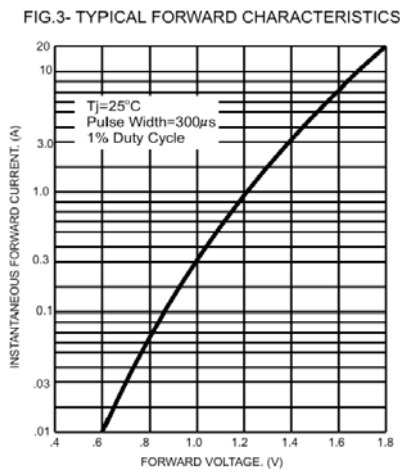
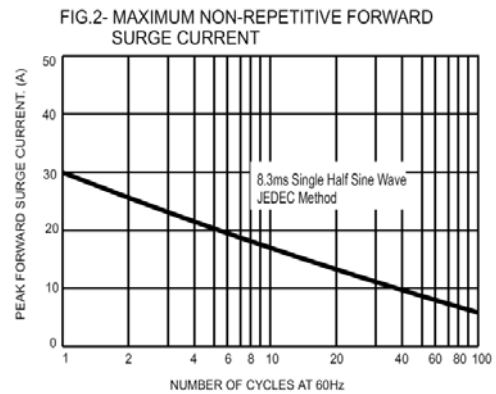
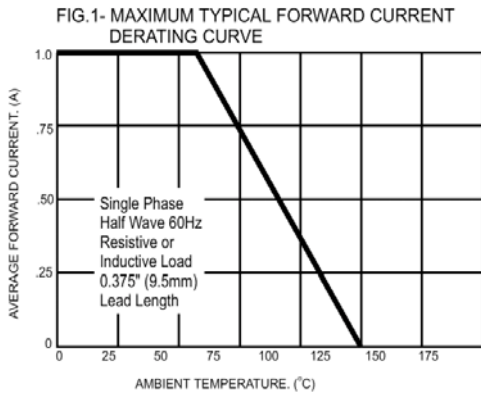
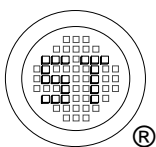
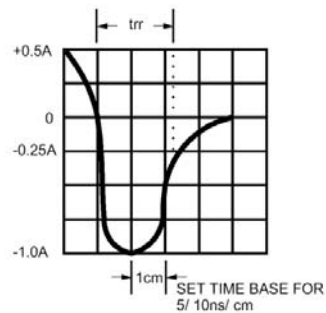
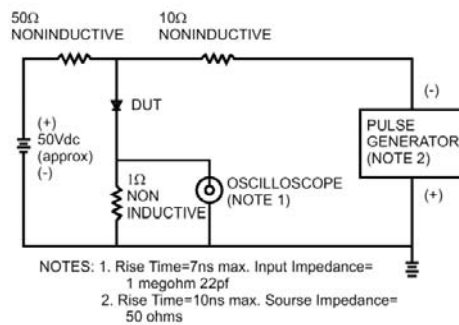


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098