

FR101 THRU FR107

FAST RECOVERY RECTIFIERS

Reverse Voltage - 50 to 1000 V

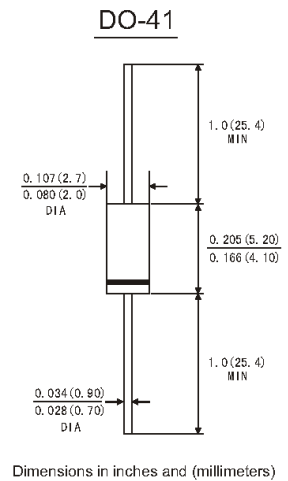
Forward Current - 1 A

Features

- High current capability
- High reliability
- Low leakage

Mechanical Data

- Case: Molded plastic, DO-41
- 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



Maximum Ratings and Electrical Characteristics

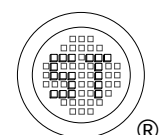
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half-wave, 60 Hz, resistive or inductive load, for capacitive load, derate current by 20%.

Parameter	Symbols	FR101	FR102	FR103	FR104	FR105	FR106	FR107	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 °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 Forward Voltage at 1 A	V _F	1.3							V
Maximum Reverse Current T _A = 25 °C at Rated DC Blocking Voltage T _A = 100 °C	I _R	5 500							μA
Typical Junction Capacitance ¹⁾	C _J	15							pF
Typical Thermal Resistance ²⁾	R _{θJA}	50							°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							°C

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

²⁾ Thermal resistance from junction to ambient 0.375" (9.5 mm) lead length P.C.B mounted.

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



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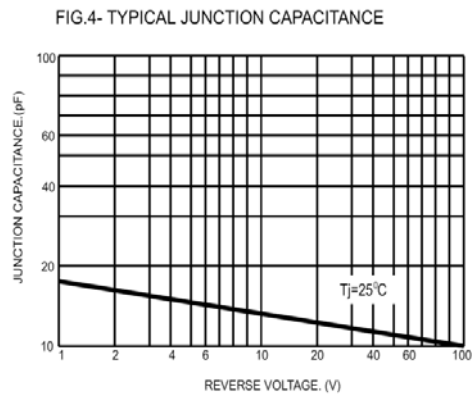
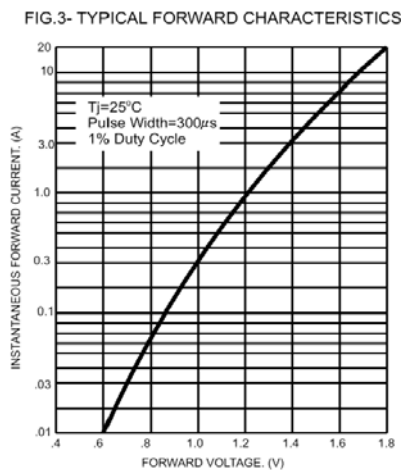
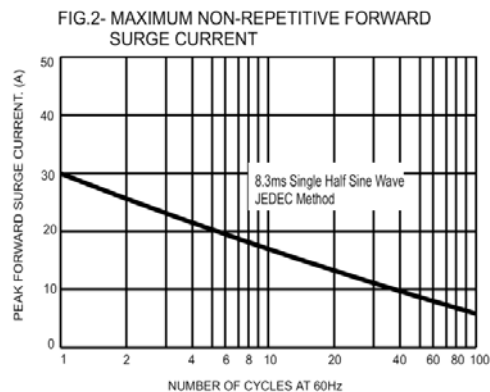
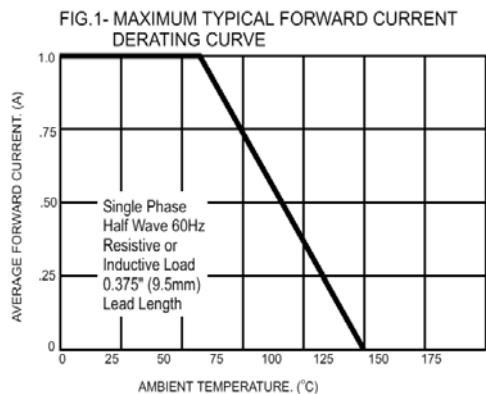


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

