

1.0Amp Fast Recovery Rectifiers

FEATURES :

- High current capability.
- Fast switching for high efficiency.
- Low leakage.
- RoHS compliant.

MECHANICAL DATA :

- Case : DO-41, Molded plastic body
- Terminals : Axial leads, solderable per MIL-STD-202, Method 208
- Polarity : Color band denotes cathode end



MAXIMUM RATINGS (Ratings at 25 °C ambient temperature unless otherwise specified)

Characteristic	Symbol	FR101	FR102	FR103	FR104	FR105	FR106	FR107	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectifier Forward Current	$I_{(AV)}$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage ($T_A=25^{\circ}C$ / $T_A=100^{\circ}C$)	I_R	5.0 / 500							μA
Typical Junction Capacitance ⁽¹⁾	C_J	12							pF
Typical Thermal resistance ⁽²⁾	$R_{\theta JA}$	50							$^{\circ}C/W$
Reverse Recovery Time ⁽³⁾	T_{RR}	150				250	500		ns
Operating Junction temperature	T_J	-55 to +125							$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +125							$^{\circ}C$

Note : 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C

2.Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted

3.Reverse recovery time test condition: $I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$

RATINGS AND CHARACTERISTICS CURVES

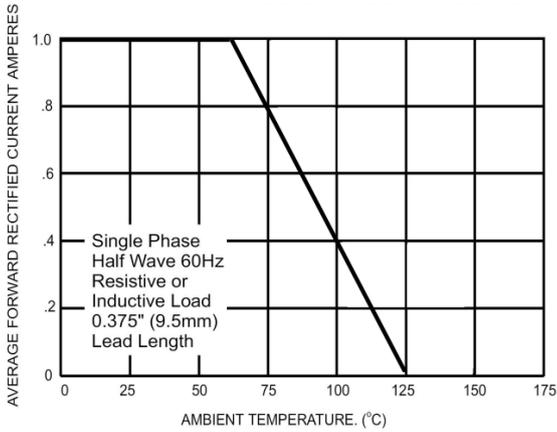


Figure 1. MAXIMUM FORWARD CURRENT DERATING CURVE

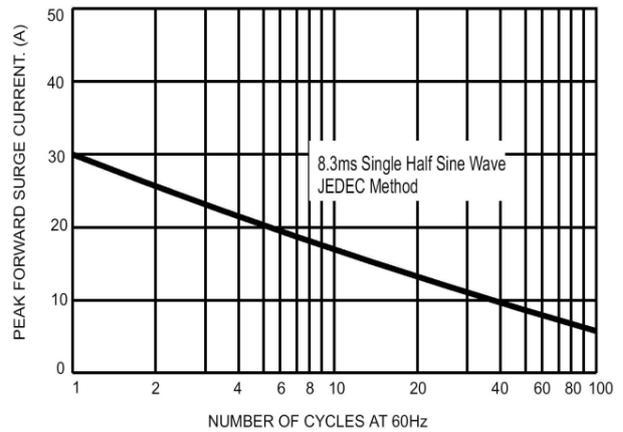


Figure 2. MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

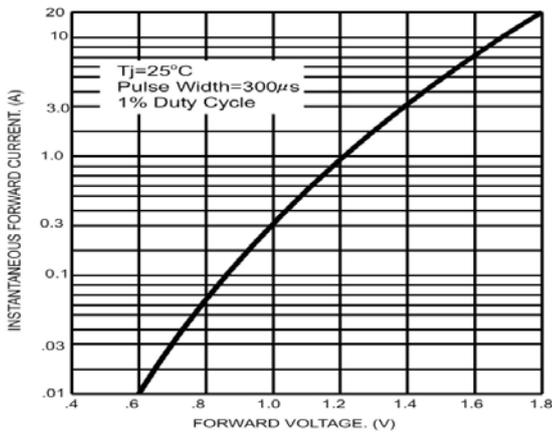


Figure 3. TYPICAL FORWARD CHARACTERISTICS

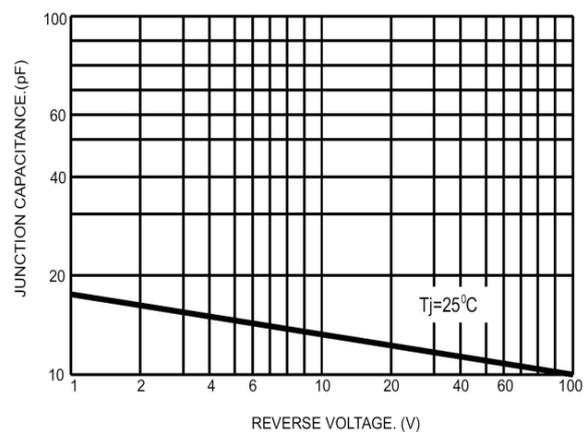


Figure 4. TYPICAL JUNCTION CAPACITANCE

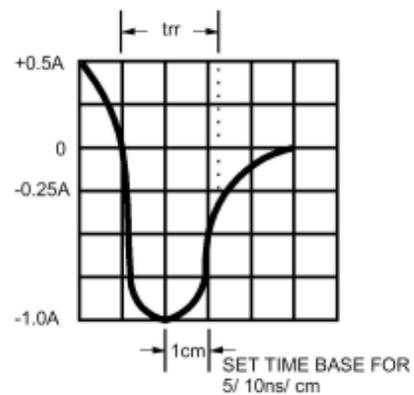
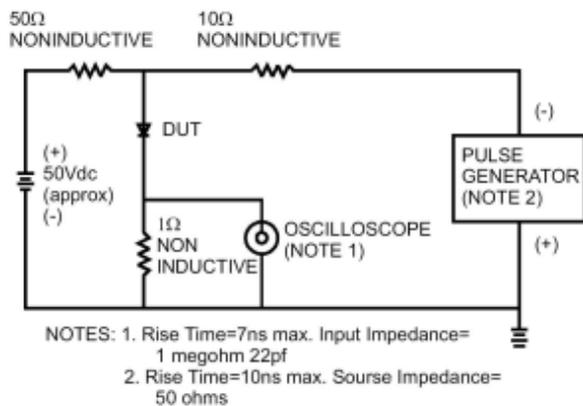
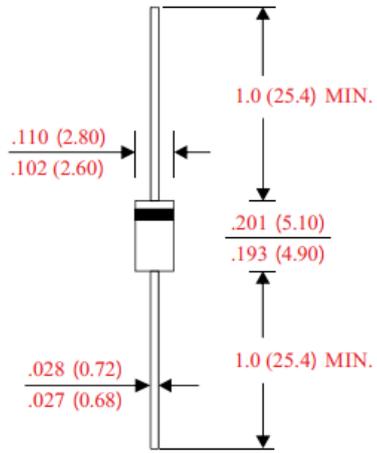


Figure 5. REVERSE RECOVERY TIME CHARACTERISTICS AND TEST CIRCUIT DIAGRAM

- DO-41 Package outlines : Dimensions in inches (millimeters)



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