Elektronische Bauelemente

FR101 THRU FR107

VOLTAGE 50V ~ 1000V

1.0 AMP Glass Passivated Fast Rectifier

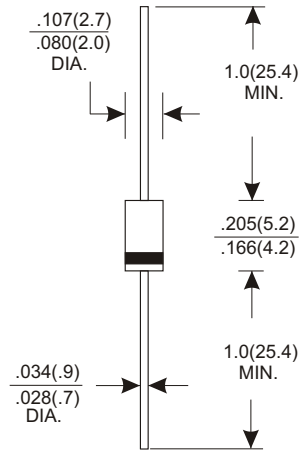
RoHS Compliant Product

A suffix of "-C" specifies halogen-free

DO-41

FEATURES

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- High Speed Switching



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Lead, Solder Able per MIL-STD-202, Method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any
- Weight: 0.34 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current, .375" (9.5mm) Lead Length at Ta = 55 ℃	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	1.3							V
Maximum DC Reverse Current Ta = 25 ℃ at Rated DC Blocking Voltage Ta = 100 ℃	5.0 100							μA
Maximum Reverse Recovery Time (Note 1)	150				250	500		ns
Typical Junction Capacitance (Note2)	15							pF
Operating Temperature Range T_J	-65 ~ +150							℃
Storage Temperature Range T_{STG}	-65 ~ +150							℃

NOTES:
1. Reverse Recovery Time Test Condition: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

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●RATING AND CHARACTERISTIC CURVES (FR101 THRU FR107)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

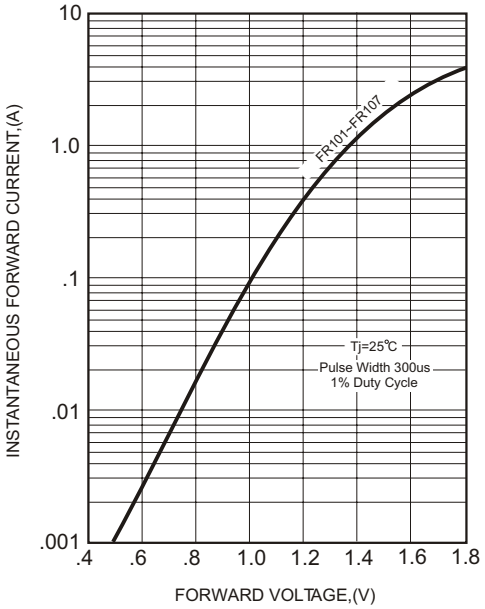


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

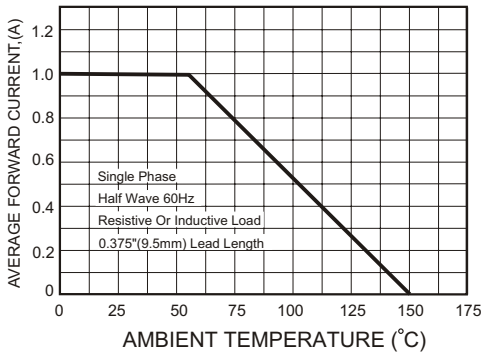
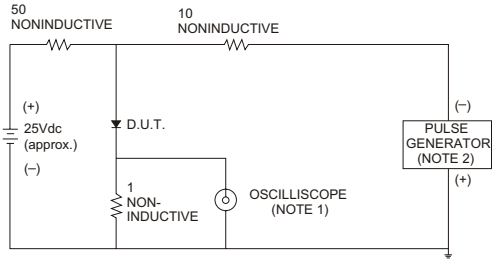


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

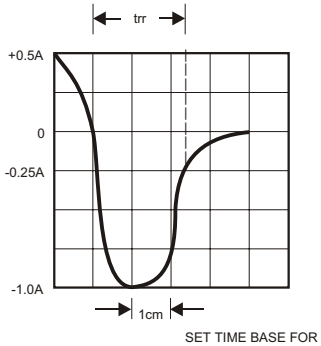


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

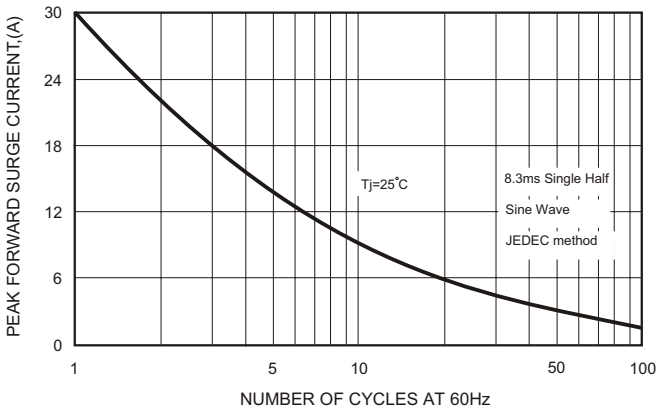


FIG.5-TYPICAL JUNCTION CAPACITANCE