

FR105-E-15C

FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE: 600V

CURRENT: 1.0A



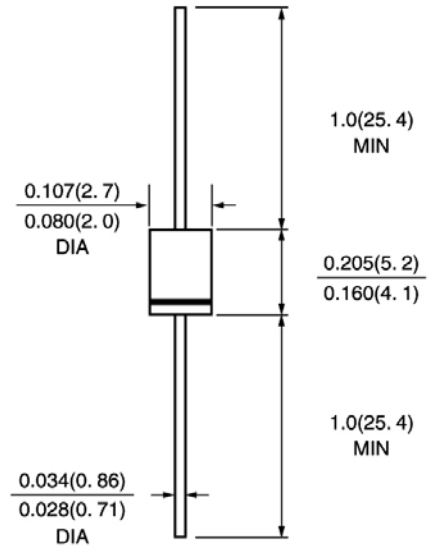
FEATURE

Molded case feature for auto insertion
High current capability
Low leakage current
High surge capability
High temperature soldering guaranteed
250°C10sec/0.375"lead length at 5 lbs tension
Fast switching for high efficiency
Halogen Free

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Halogen Free Epoxy
Polarity: color band denotes cathode
Mounting position: any

DO- 41\DO-204AL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	FR105-E-15C	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	600	V
Maximum RMS Voltage	V _{rms}	420	V
Maximum DC blocking Voltage	V _{dc}	600	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =75°C	I _{f(av)}	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	30.0	A
Maximum Forward Voltage at rated Forward Current and 25°C	V _f	1.3	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I _r	5.0 100.0	μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	250	nS
Typical Junction Capacitance (Note 2)	C _j	15.0	pF
Typical Thermal Resistance (Note 3)	R _{th(ja)}	50.0	°C/W
Storage and Operating Junction Temperature	T _{stg,Tj}	-50 to +150	°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 0.375"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES FR105-E-15C

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

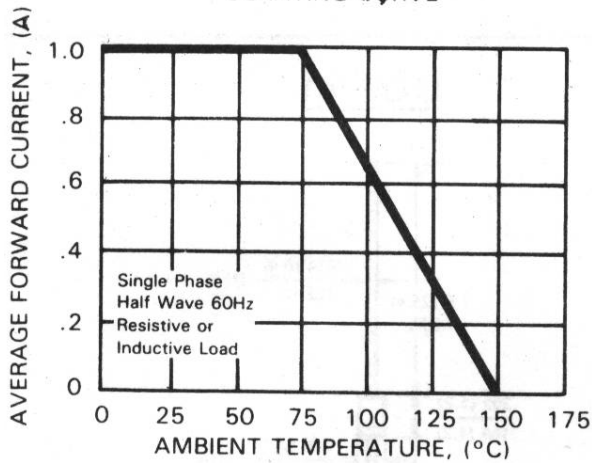


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

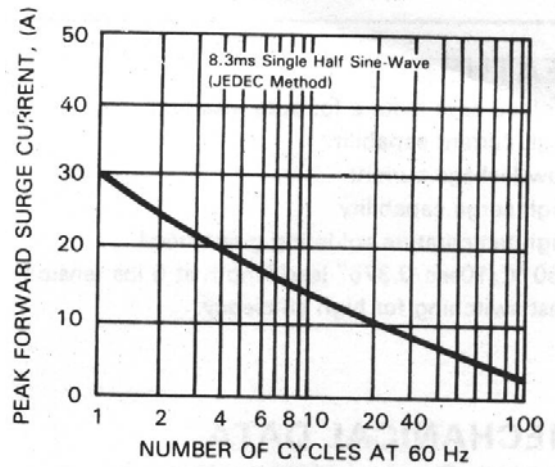


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

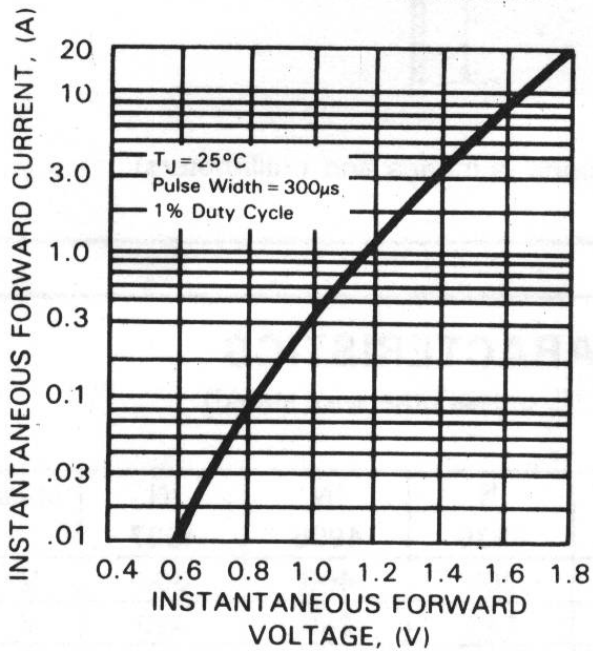


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

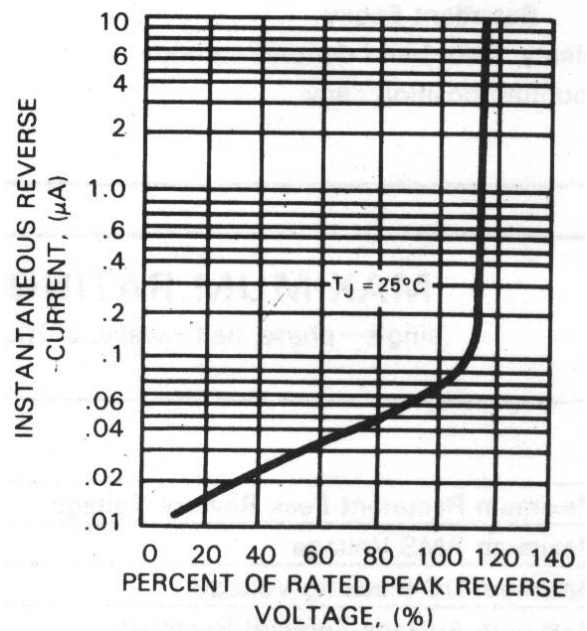


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

