

# FR105-1

**FAST SWITCHING  
PLASTIC RECTIFIER**  
VOLTAGE:600V      CURRENT:1.0A



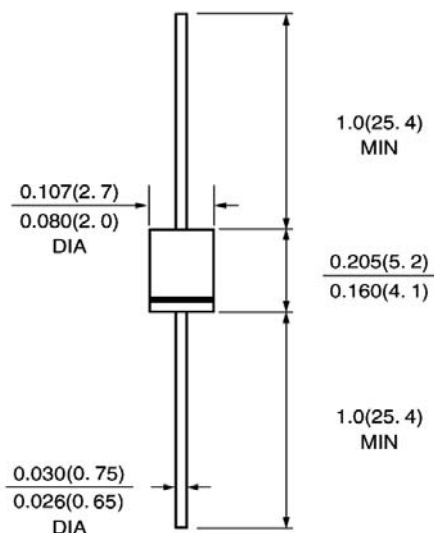
## FEATURE

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

## MECHANICAL DATA

Terminal:Plated axial leads solderable per  
MIL-STD 202E, method 208C  
Case:Molded with UL-94 Class V-0 recognized Flame  
Retardant 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	FR105-1	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	Vdc	600	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =75°C	If(av)	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	30.0	A
Maximum Forward Voltage at rated Forward Current and 25°C	Vf	1.3	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	Ir	5.0 100.0	μA μA
Maximum Reverse Recovery Time (Note 1)	Trr	100	nS
Typical Junction Capacitance (Note 2)	Cj	15.0	pF
Typical Thermal Resistance (Note 3)	Rth(ja)	50.0	°C/W
Storage and Operating Junction Temperature	Tstg,Tj	-50 to +150	°C

### Note:

1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375"lead length, P.C. Board Mounted

# RATINGS AND CHARACTERISTIC CURVES FR105-1

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

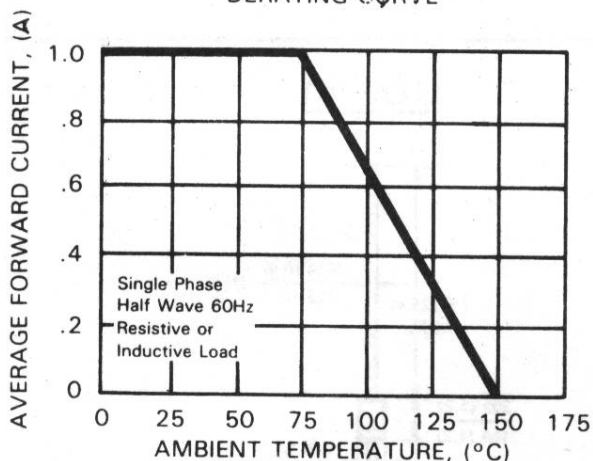


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

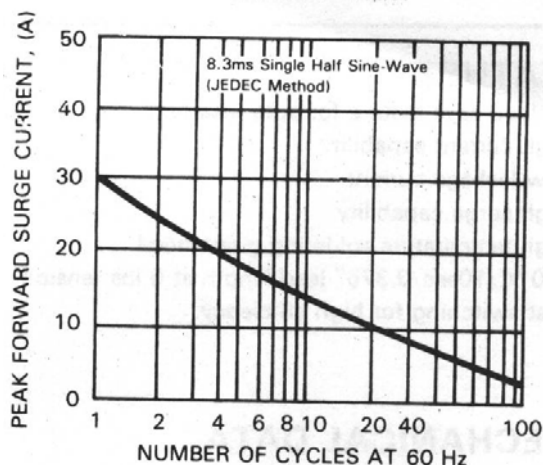


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

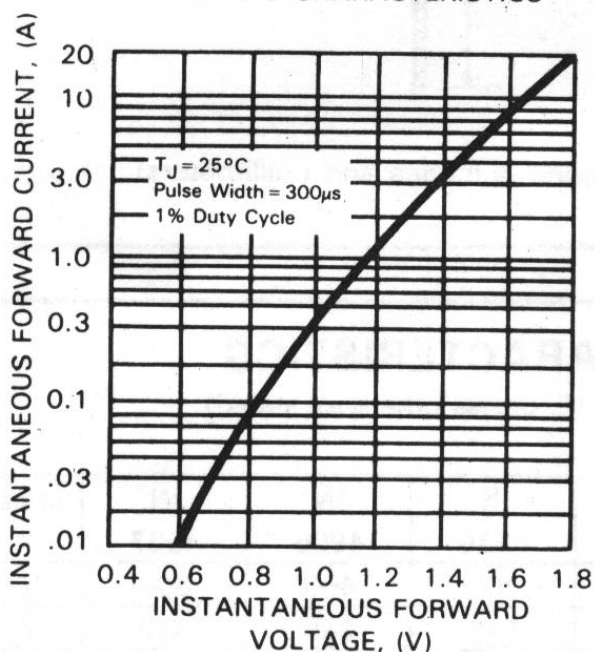


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

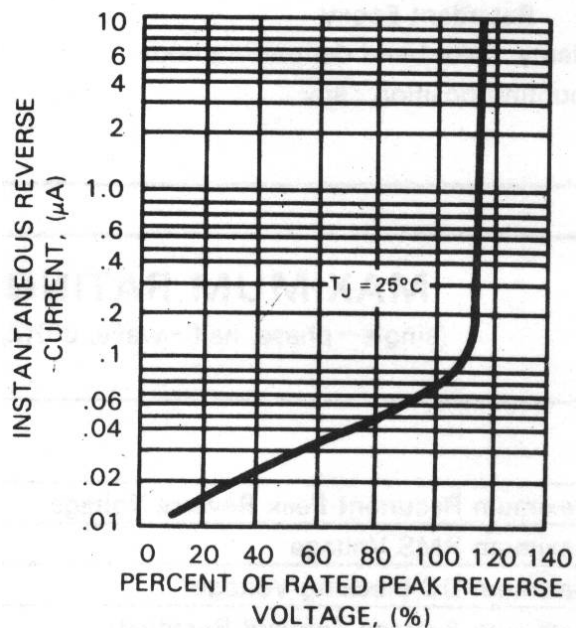


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

