# FR151 THRU FR157

## FAST SWITCHING PLASTIC RECTIFIER

**VOLTAGE:50 TO 1000V CURRENT: 1.5A**

VOLTARISTECH INC.
POWER • PRECISION • INNOVATION

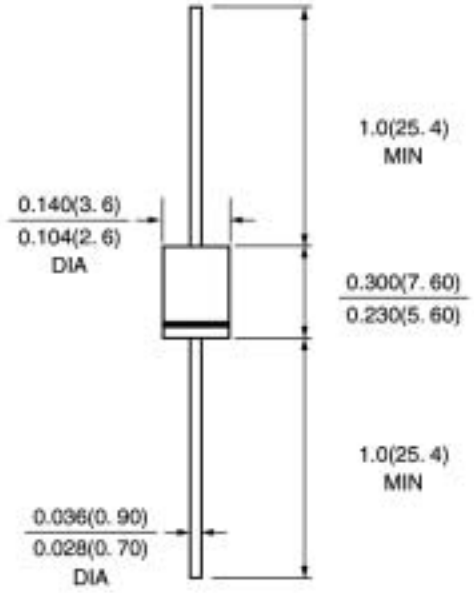
## FEATURE

Molded case feature for auto insertion
High current capability
Low leakage current
High surge capability
High temperature soldering guaranteed
250°C/10sec/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-15\DO-201AC**




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 | FR 151 | FR 152 | FR 153 | FR 154 | FR 155 | FR 156 | FR 157 | units |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | Vrrm | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | Vrms | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking Voltage | Vdc | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current 3/8"lead length at Ta =75°C | If(av) | 1.5 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | Ifsm | 60.0 | | | | | | | 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 | Ir | 5.0 | | | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | Trr | 150 | | | | 250 | 500 | | nS |
| Typical Junction Capacitance (Note 2) | Cj | 40.0 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R(ja) | 40.0 | | | | | | | °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 FR151 THRU FR157

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

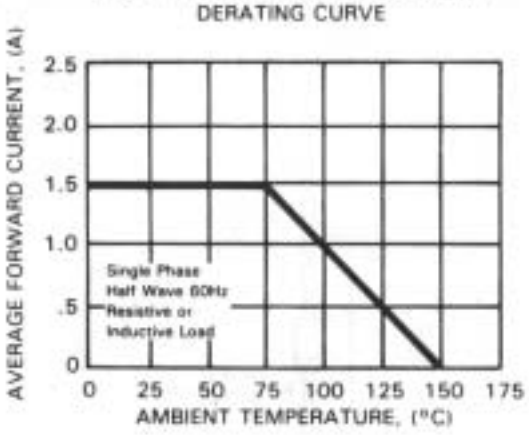



FIG. 2 – MAXIMUM NON-REPETITI ˚ FORWARD SURGE CURRENT

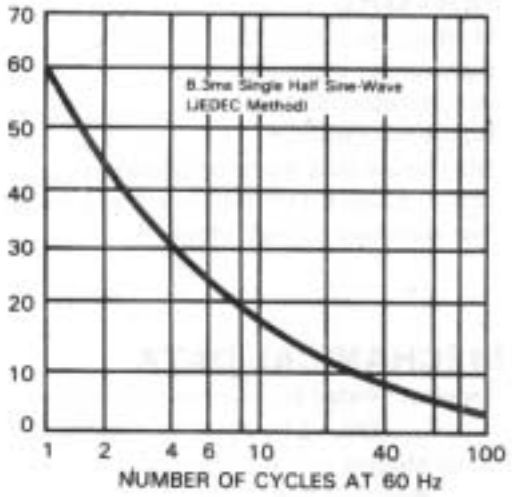



FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

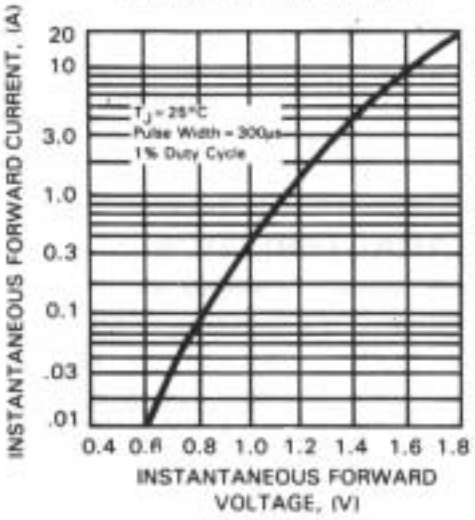
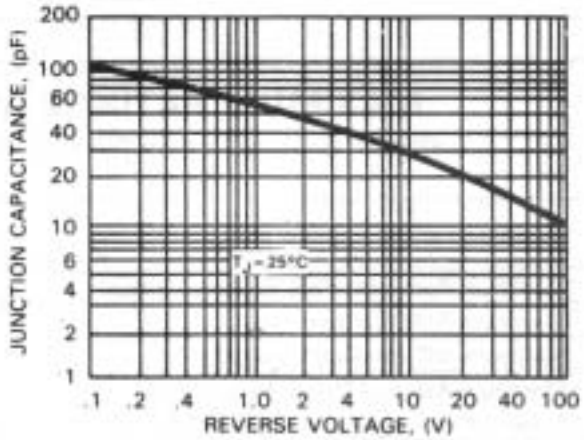



FIG. 4 - TYPICAL JUNCTION CAPACITANCE

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