



CHENMKO ENTERPRISE CO.,LTD

**FR151PT
THRU
FR157PT**

Lead free devices

FAST RECOVERY RECTIFIER

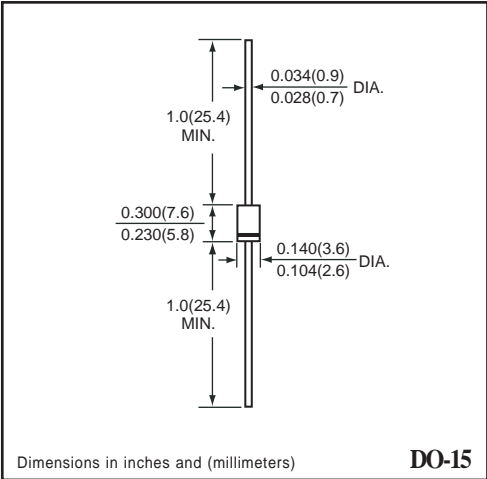
VOLTAGE RANGE 50 - 1000 Volts CURRENT 1.5 Amperes

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * Fast switching

MECHANICAL DATA

Case: JEDEC DO-15 molded plastic
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.38 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | FR151PT | FR152PT | FR153PT | FR154PT | FR155PT | FR156PT | FR157PT | UNITS |
|---|--------|-------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | Vdc | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Current at TA = 75°C | Io | 1.5 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 60 | | | | | | | Amps |
| Typical Junction Capacitance (Note 1) | CJ | 40 | | | | | | | pF |
| Operating and Storage Temperature Range | TJ,STG | -65 to +150 | | | | | | | °C |

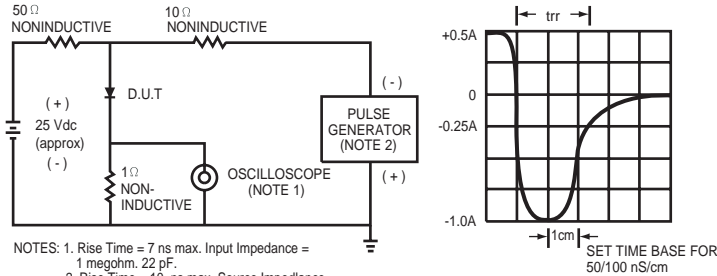
ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | FR151PT | FR152PT | FR153PT | FR154PT | FR155PT | FR156PT | FR157PT | UNITS |
|---|--------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Instantaneous Forward Voltage at 1.5 A DC | VF | 1.3 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage at TA = 25°C | IR | 5.0 | | | | | | | uAmps |
| Maximum Full Load Reverse Current Average, Full Cycle 0.375" (9.5mm) lead length at TL = 55°C | | 100 | | | | | | | uAmps |
| Maximum Reverse Recovery Time (Note 2) | trr | 150 | | | | 250 | 500 | | nSec |

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
 2. Test Conditions : IF = 0.5 A, IR = -1.0 A, IRR = -0.25 A

RATING CHARACTERISTIC CURVES (FR151PT THRU FR157PT)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm. 22 pF.
2. Rise Time = 10 ns max. Source Impedance = 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

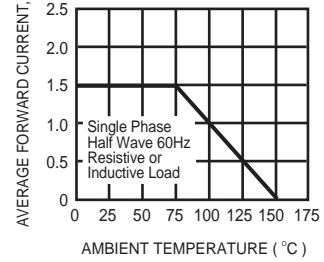


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

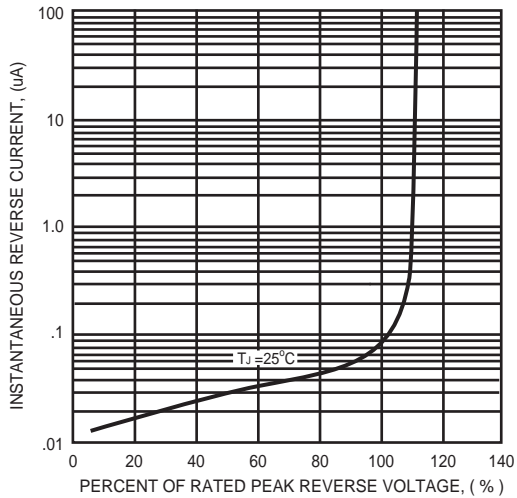


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

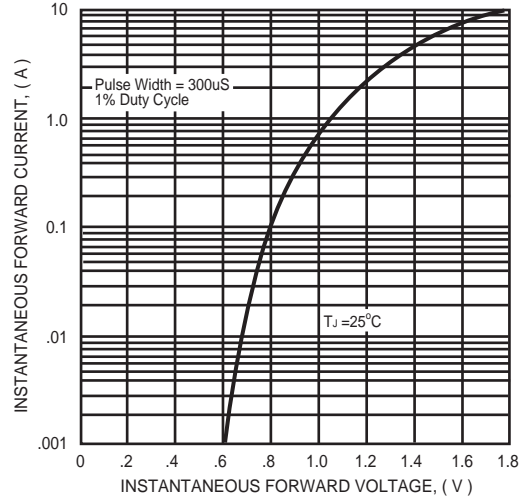


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

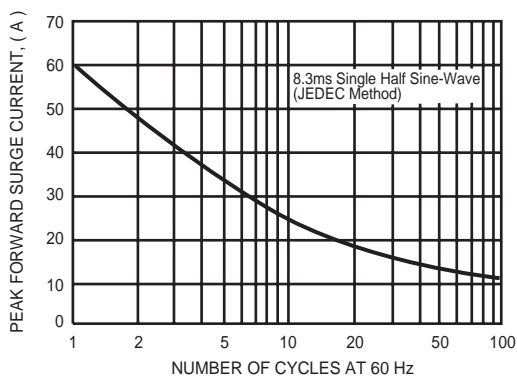


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

