

R15 SERIES

FAST SWITCHING RECTIFIER



**CHENG-YI
ELECTRONIC**



FEATURE

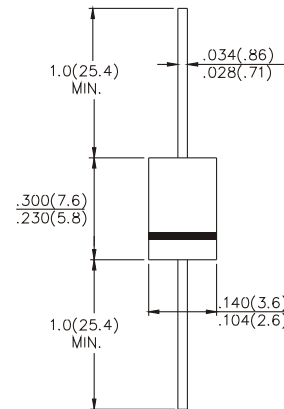
- Low forward voltage
- High current capability
- Low leakage current R15 S
- High surge capability
- Low cost

MECHANICAL DATA

- Case: Mold plastic use UL 94V-0 recognized flame retardant epoxy
- Terminals: Axial leads, solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode
- Mounting Position: Any

VOLTAGE RANGE 50 TO 1000 Volts
CURRENT 1.5 Amperes

DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| | R15A | R15B | R15D | R15G | R15J | R15K | R15M | 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 T _A = 55°C | 1.5 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms single half sine-wave | 60 | | | | | | | A |
| Maximum Forward Voltage at 1.5A Peak | 1.3 | | | | | | | V |
| Maximum Full Load Reverse Current, Full Cycle Average, .375" (9.5mm) Lead Length T _A = 55°C | 30 | | | | | | | μA |
| Maximum DC Reverse Current, at Rated DC Blocking Voltage | 5.0 | | | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | 150 | 150 | 150 | 150 | 250 | 500 | 500 | nS |
| Typical Junction Capacitance (Note 2) | 20 | | | | | | | pF |
| Operating and Storage Temperature Range | -65 to +175 | | | | | | | °C |

Notes : 1. Reverse Recovery Test Conditions : I_F = .5A, I_R = 1.0A, I_{rr} = .25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

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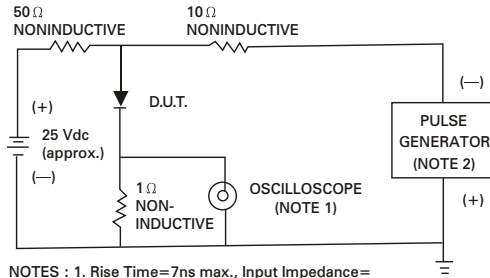
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RATING AND CHARACTERISTICS CURVES R15 SERIES

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



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

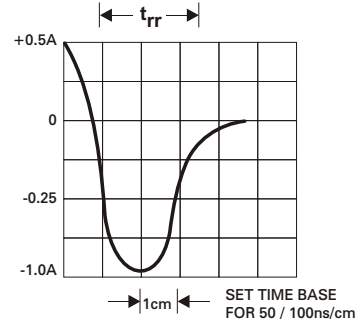


Fig. 2 - FORWARD CURRENT DERATING CURVE

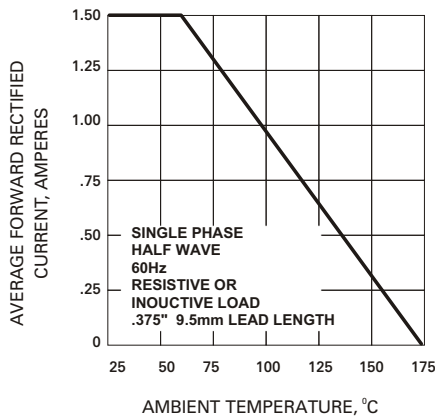


Fig. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

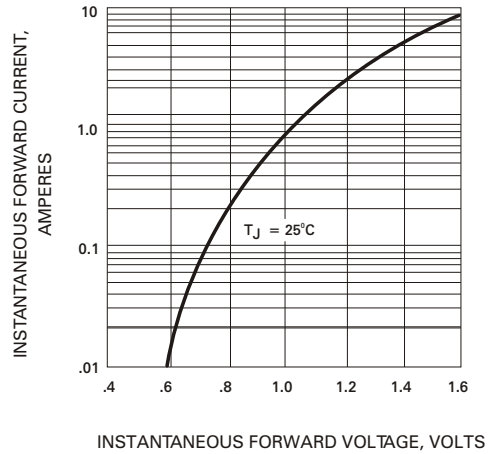


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

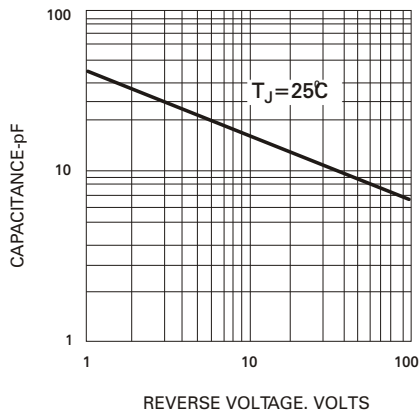


Fig. 5 - PEAK FORWARD SURGE CURRENT

