

# TE150R THRU TE158R

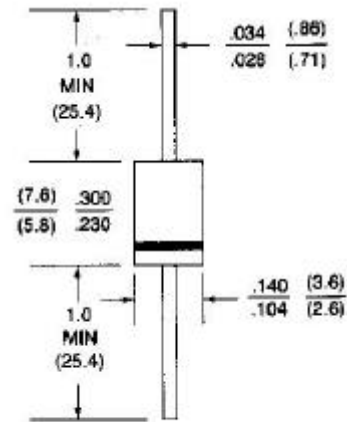
## GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 1.5 Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- 1.5 ampere operation at  $T_A=55$  with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency
- Glass passivated junction in DO-15 package

### DO-15



Dimensions in inches and (millimeters)

### MECHANICAL DATA

Case: Molded plastic, DO-15

Terminals: axial leads, solderable per MIL-STD-202, Method 208

Polarity: denotes cathode

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

	TE150R	TE151R	TE152R	TE154R	TE156R	TE158R	UNITS
Peak Reverse Voltage, Repetitive; $V_{RM}$	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
DC Reverse Voltage; $V_R$	50	100	200	400	600	800	V
Average Forward Current, $I_O$ @ $T_A=55$ 3.8" lead length 60 Hz, resistive or inductive load	1.5						A
Peak Forward Surge Current, $I_{FM}$ (surge) 8.3msec. single half sine wave superimposed on rated load (JECEC method)	50						A
Maximum Forward Voltage $V_F$ @ 1.5A, 25	1.3						V
Maximum Reverse Current, @ Rated $T_a=25$ Reverse Voltage $T_a=100$	5.0 150						A
Typical Junction capacitance (Note 1) CJ	25						pF
Typical Thermal Resistance (Note 2) R JA	45						/W
Reverse Recovery Time $I_F=.5A$ , $I_R=1A$ , $I_{rr}=.25A$	150	150	150	150	250	500	ns
Operating and Storage Temperature Range	-55 to +150						

### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length P.C.B. mounted

RATING AND CHARACTERISTIC CURVES  
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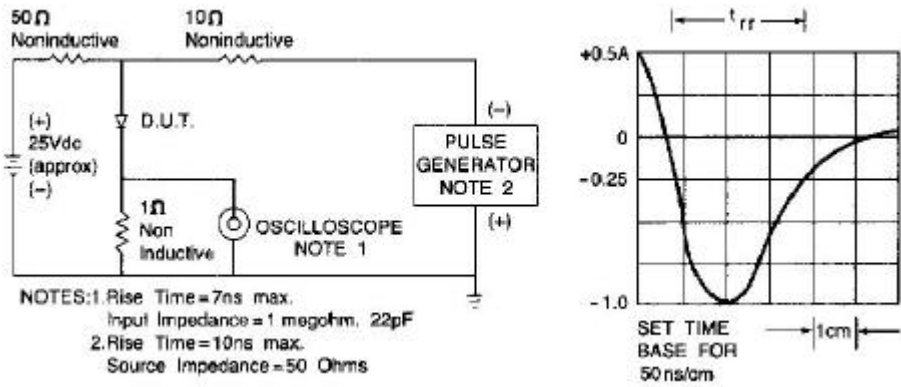


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

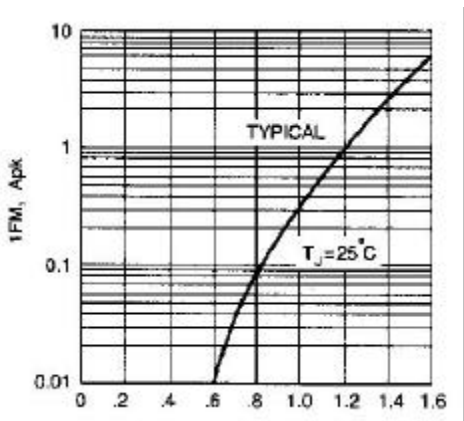


Fig. 2- FORWARD CHARACTERISTICS

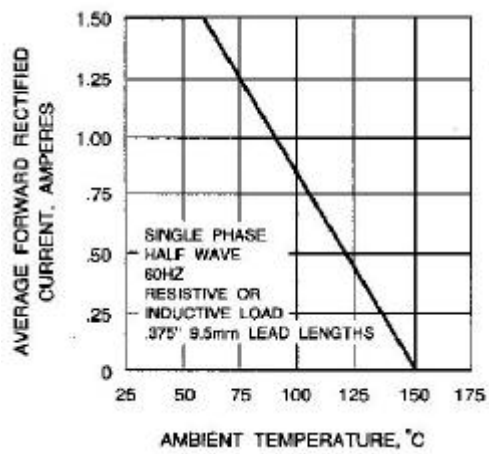


Fig. 3-FORWARD CURRENT DERATING CURVE

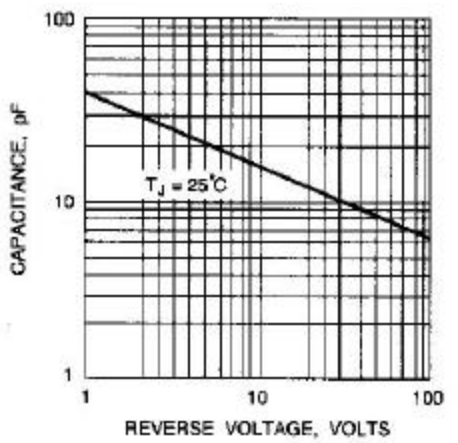


Fig. 4-TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

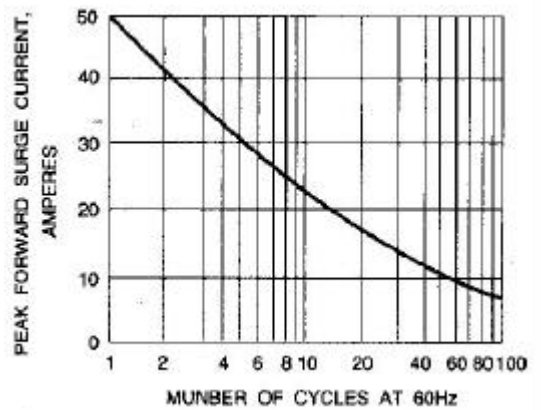


Fig. 5-PEAK FORWARD SURGE CURRENT