

# TE300R THRU TE308R

## GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 3.0 Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated junction in a DO-201AD package
- 3 ampere operation at  $T_A=55$  with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

### MECHANICAL DATA

Case: Molded plastic, DO-201AD

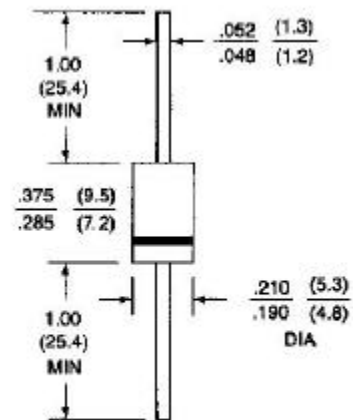
Terminals: axial leads, solderable per MIL-STD-202,

Method 208

Mounting Position: Any

Weight: 0.04 ounce, 1.1 grams

### DO-201AD



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	TE300R	TE301R	TE302R	TE304R	TE306R	TE308R	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
Maximum Average Forward Rectified Current .375", 9.5mm Lead Length at $T_A=55$	3.0						A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JEDEC method)	125						A
Maximum Forward Voltage at 3.0A	1.3						V
Maximum Reverse Current at Rated DC $T_a=25$	5.0						A
Blocking Voltage $T_a=100$	300						
Typical Junction capacitance (Note 1) CJ	60						pF
Typical Thermal Resistance (Note 2) R JA	22.0						/W
Maximum Reverse Recovery Time(Note 3)	150	150	150	150	250	500	ns
Operating and Storage Temperature Range $T_A$	-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
3. Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$

RATING AND CHARACTERISTIC CURVES

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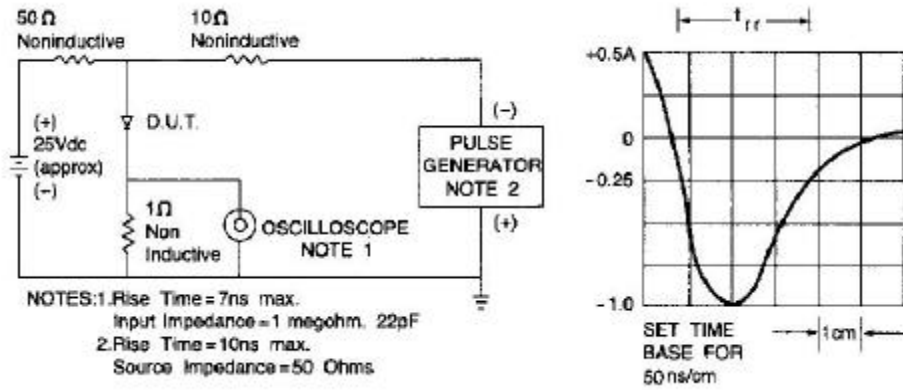


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

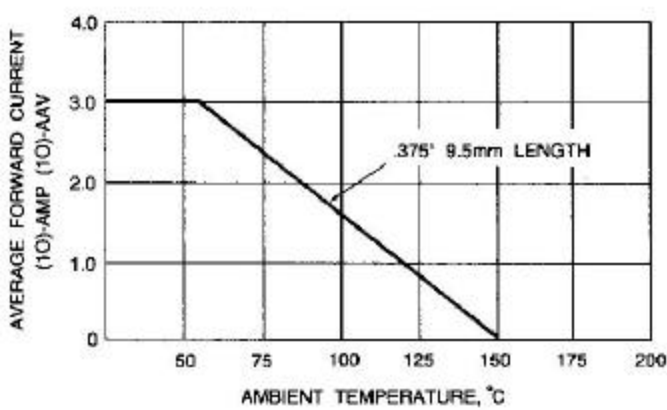


Fig. 2- FORWARD CURRENT DERATING CURVE

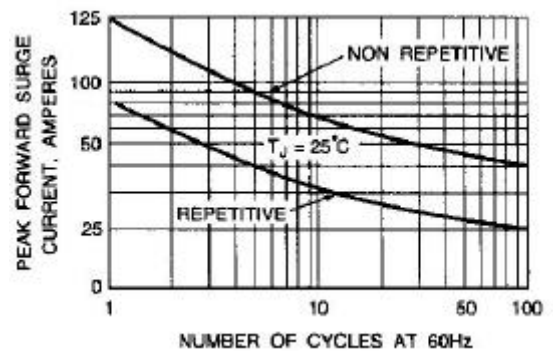


Fig. 3-PEAK FORWARD SURGE CURRENT

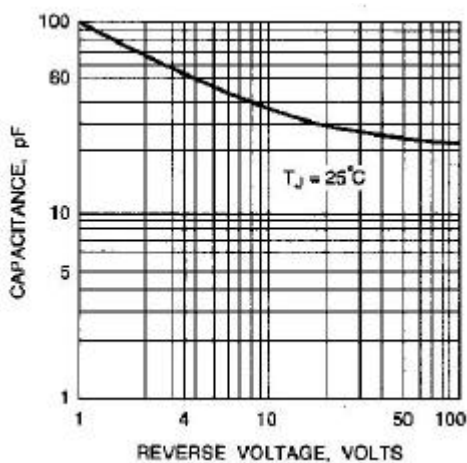


Fig. 4-TYPICAL JUNCTION CAPACITANCE

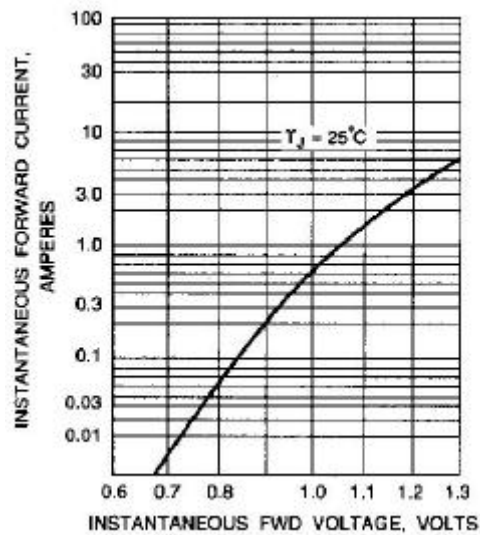


Fig. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC