TE 4942 THRU TE4948

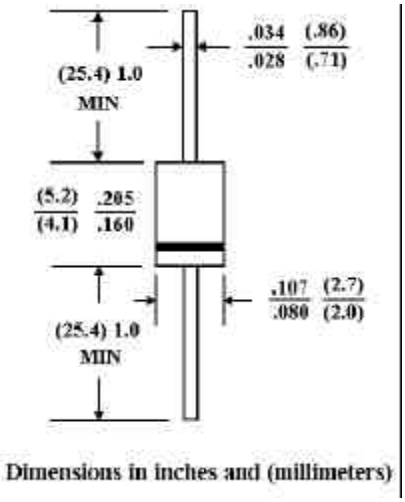
GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

VOLTAGE - 200 to 1000 Volts CURRENT - 1.0 Ampere

FEATURES

- High surge current capabi ty
- Plastic package has Underwriters Laboratory
- Flammab ity Classification 94V-O Ut izing
- Flame Retardant Epoxy Molding Compound
- 1.0 ampere operation at T_A=55 ¢J with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228
- Glass passivated junction in DO-41 package

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41

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

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

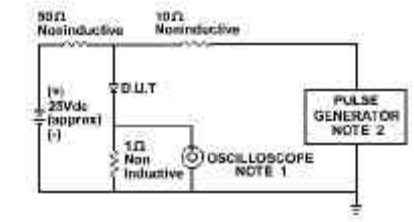
	TE4942	TE4944	TE4946	TE4947	4948	UNITS
Maximum Recurrent Peak Reverse Voltage	200	400	600	800	1000	V
Maximum RMS Voltage	140	280	420	560	700	V
Maximum DC Blocking Voltage	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at T_A=55 ¢J	1.0					A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JECEC method)	30					A
Maximum Forward Voltage at 1.0A	1.3					V
Maximum Reverse Current T_a=25 ¢J	5.0					£gA
at Rated DC Blocking Voltage T_a=100 ¢J	150					£gA
Typical Junction capacitance (Note 1) CJ	12					pF
Typical Thermal Resistance (Note 3) R £KJA	67					¢J/W
Maximum Reverse Recovery Time(Note 2)	150	150	250	250	500	ns
Operating and Storage Temperature Range	-55 to +150					¢J

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I =.25A
3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length P.C.B. mounted

RATING AND CHARACTERISTIC CURVES

TE 4942 THRU TE 4948



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

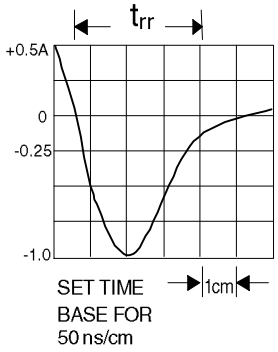


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

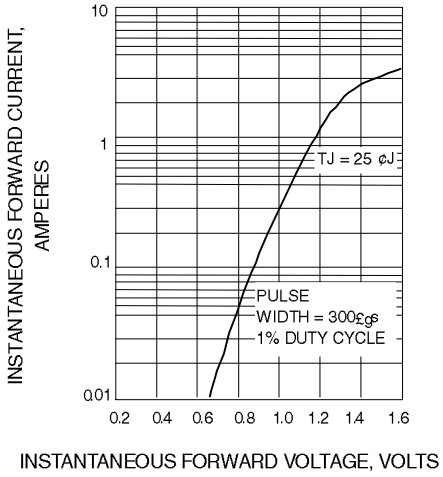


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

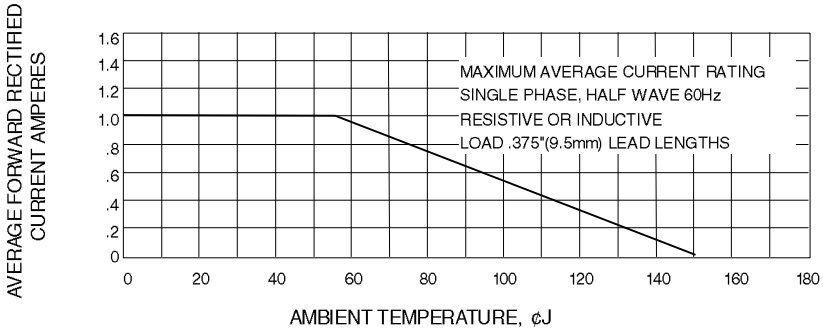


Fig. 3-FORWARD CURRENT DERATING CURVE

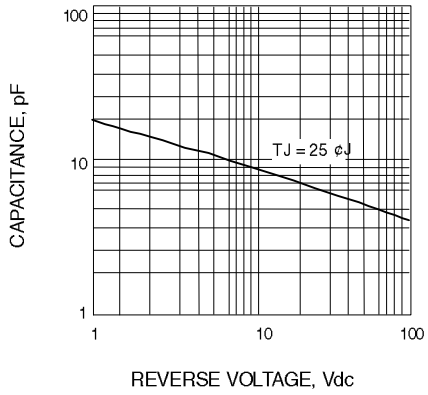


Fig. 4-TYPICAL JUNCTION CAPACITANCE

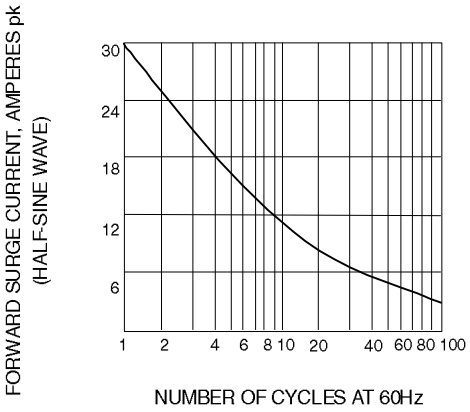


Fig. 5-PEAK FORWARD SURGE CURRENT