

TS100R THRU TS1010R

FEATURES

High current capab ity

Plastic package has Underwriters Laboratory

Flammab ity Classification 94V-O Ut izing

Flame Retardant Epoxy Molding Compound

1.0 ampere operation at $T_A=55 \text{ } \text{¢J}$ with no thermal runaway

Fast switching for high efficiency

Exceeds environmental standards of MIL-S-19500/228

Low leakage

MECHANICAL DATA

Case: Molded plastic, DO-41

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

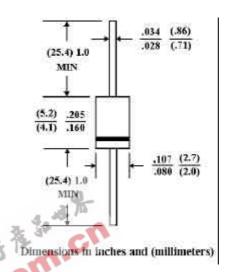
Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

<u>DO-41</u>



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%

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	TS100R	TS101R	TS102R	TS104R	TS106R	TS108R	TS ^{1010R}	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	1.0							Α
Current .375"(9.5mm) lead length at T_A =55 ¢J								
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JECEC method)	30							Α
Maximum Forward Voltage at 1.0A DC	1.3							V
Maximum Reverse Current T _J =25 ¢J	5.0							£gA
at Rated DC Blocking Voltage T _J =100 ¢J	500							£gA
Typical Junction capacitance (Note 1) CJ	12							₽F
Typical Thermal Resistance (Note 3) R £KJA	41							¢J/W
Maximum Reverse Recovery Time(Note 2)	150	150	150	150	250	500	500	ns
Operating and Storage Temperature Range TJ, TSTG	-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_B=1A, I =.25A
- 3. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. mounted

RATING AND CHARACTERISTIC CURVES TS100R THRU T S1010R

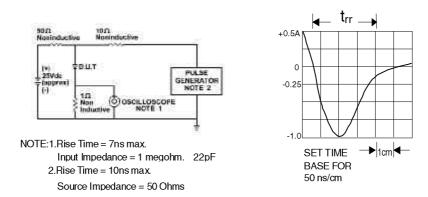


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

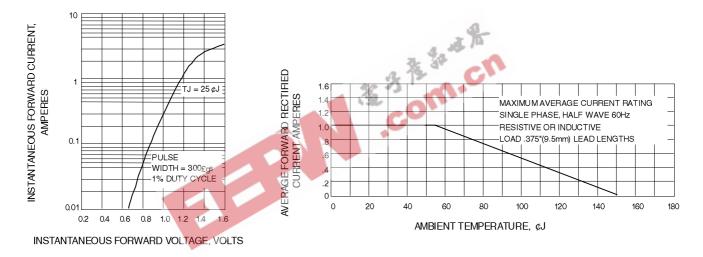


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

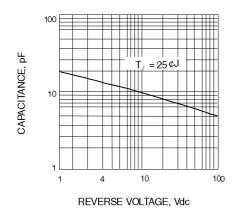


Fig. 4-TYPICAL JUNCTION CAPACITANCE

Fig. 3-FORWARD CURRENT DERATING CURVE

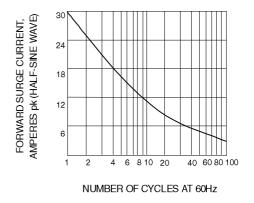


Fig. 5-PEAK FORWARD SURGE CURRENT