



# TS 600R THRU TS 608R

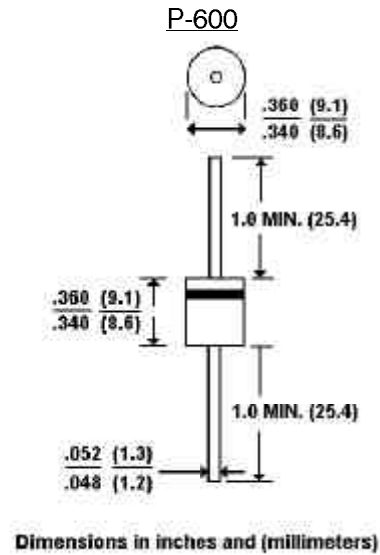
GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER  
 VOLTAGE - 50 to 800 Volts CURRENT - 6.0 Amperes

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated junction in P600 package
- 6 ampere operation at  $T_A=60^\circ\text{C}$  with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

## MECHANICAL DATA

- Case: Molded plastic, P600
- Terminals: axial leads, solderable per MIL-STD-202, Method 208
- Mounting position: Any
- Weight: 0.07 ounce, 2.1 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	TS 600R	TS 601R	TS 602R	TS 604R	TS 606R	608R	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 @ $T_A=60^\circ\text{C}$	6.0						A
Peak Forward Surge Current 8.3ms single half sine wave $I_{FSM}$ superimposed on rated load (JEDEC method)	250						A
Maximum Forward Voltage at 6.0A DC	1.3						V
Maximum DC Reverse Current at Rated DC $T_a=25^\circ\text{C}$	5.0						$\mu\text{gA}$
Blocking Voltage @ $T_a=100^\circ\text{C}$	500						
Maximum Reverse Recovery Time (Note 1)	150	150	150	150	250	500	ns
Typical Junction capacitance (Note 2)	300						pF
Typical Thermal Resistance at 0.375" (9.5mm) lead length R $\theta$ KJA	10.0						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range $T_A, T_J$	-55 to +150						$^\circ\text{C}$

## NOTES:

- Reverse Recovery Test Conditions:  $I_F=.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=.25\text{A}$
- Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES

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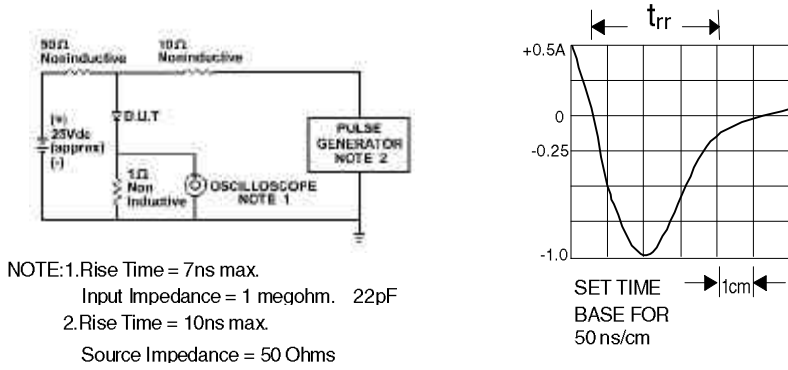


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

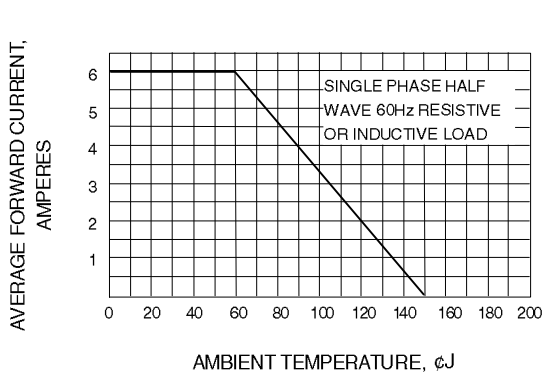


Fig. 2-FORWARD DERATING CURVE

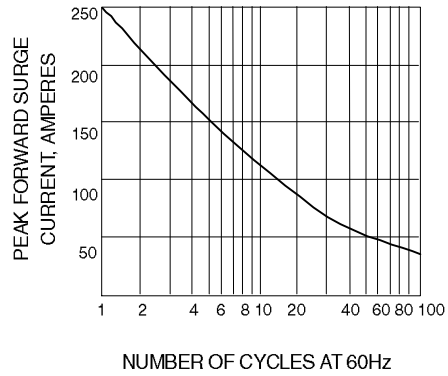


Fig. 3-PEAK FORWARD SURGE CURRENT

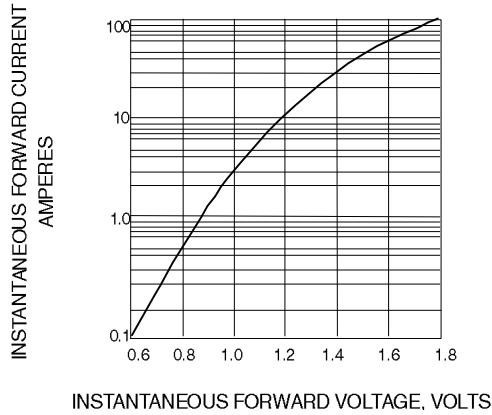


Fig. 4-TYPICAL FORWARD CHARACTERISTIC