

6A Silicon Rectifiers

Voltage range 50-800 Volts

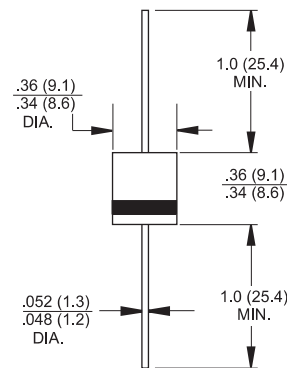
FEATURES

- Plastic material used carries Underwriters Laboratory Classification 94V-0
- High forward current capability
- Diffused junction
- High surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375"(9.5mm) lead length, 5lbs.(2.3kg) tension

MECHANICAL DATA

- Cases: Molded plastic body
- Lead: Plated axial leads, matte-tin plating
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.07 ounce, 2.1 grams

P600



Dimensions in inches and (millimeters)

 **Pb-free lead finish (second-level interconnect).**

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

Parameter	Symbol	TS750	TS751	TS752	TS754	TS756	TS758	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	V
Maximum Non-repetitive Peak Reverse Voltage	V_{BR}	60	120	240	480	720	1200	V
Maximum Average Forward Rectified Current at $T_A = 60^\circ\text{C}$, P.C.B. Mounting (Fig. 1) $T_L = 60^\circ\text{C}$, 0.125"(3.18mm) Lead Length (Fig. 2)	$I_{(AV)}$	6.0 22.0						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	400						A
Maximum Instantaneous Forward Voltage @ 6.0A @ 100A	V_F	0.95 1.25 1.30						V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 1000						μA μA
Typical Junction Capacitance (Note 1)	C_j	150						pF
Typical Thermal Resistance (Note 2)	$R\theta_{JA}$ $R\theta_{JL}$	20.0 4.0						$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-50 to +150						$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-50 to +150						$^\circ\text{C}$

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Mount on copper pad, size 16mm x 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

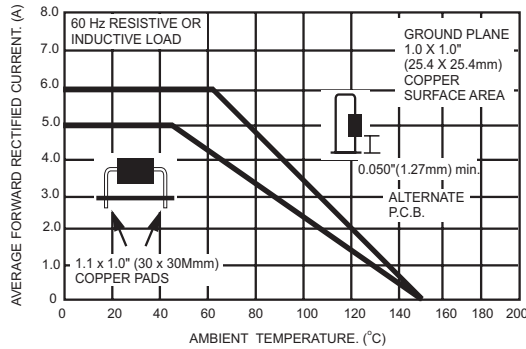


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

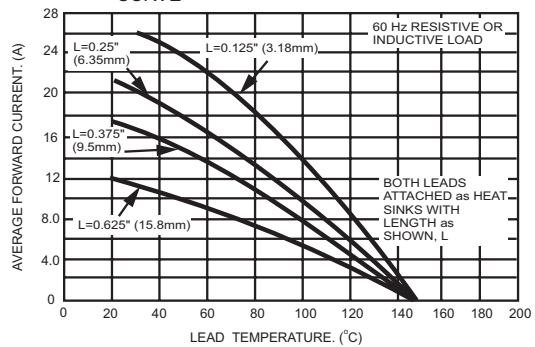


FIG.3- TYPICAL REVERSE CHARACTERISTICS

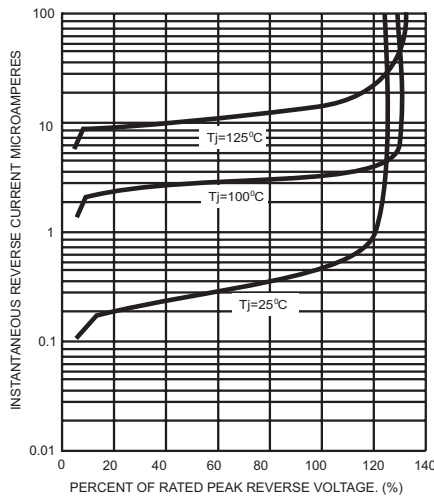


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

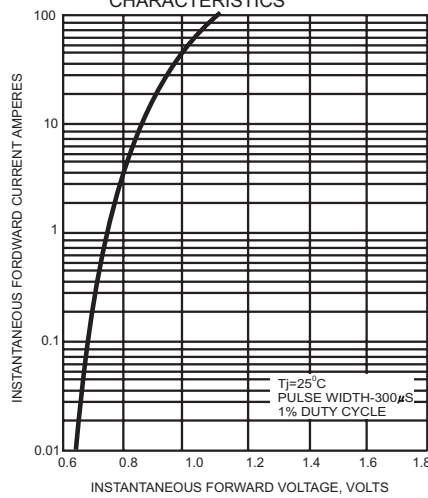


FIG.5- MAXIMUM PEAK FORWARD SURGE CURRENT

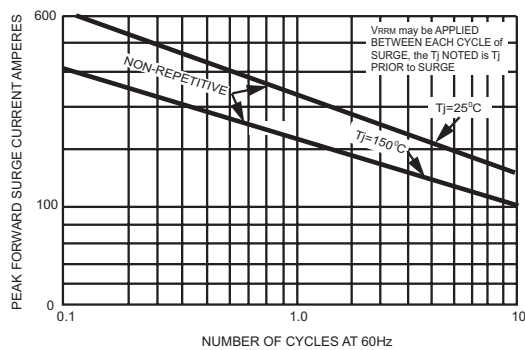
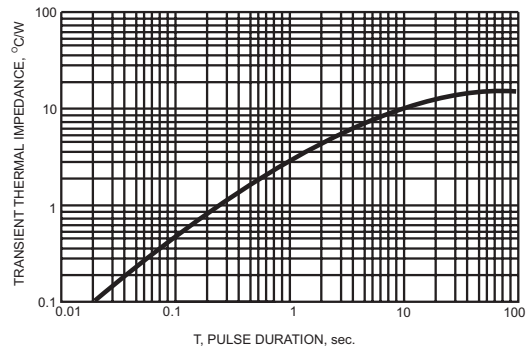


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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