TS750 THRU TS758

6.0 AMPS. Silicon Rectifiers

Voltage Range
50 to 800 Volts
Current
6.0 Amperes

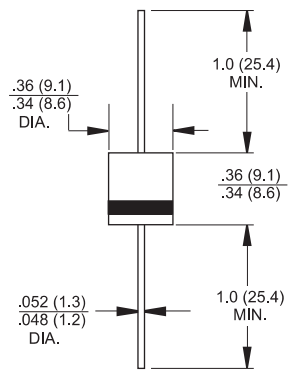
Features

- ✧ 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, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode end
- ✧ Mounting position: Any
- ✧ Weight: 0.07 ounce, 2.1 grams

P600



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave,60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	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℃, P.C.B. Mounting (Fig. 1) T_L= 60℃, 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	V_F	0.95						V
@ 100A		1.25					1.30	
Maximum DC Reverse Current @ T_A=25℃ at Rated DC Blocking Voltage @ T_A=100℃	I_R	5.0 1000						uA uA
Typical Junction Capacitance (Note 1)	Cj	150						pF
Typical Thermal Resistance (Note 3)	R θ JA R θ JL	20.0 4.0						℃/W
Operating Junction Temperature Range	T_J	-50 to +150						℃
Storage Temperature Range	T_{STG}	-50 to +150						℃

Notes: 1. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 Volts
2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
3. Thermal Resistance from Junction to Ambient and from Junction to Lead at .375” (9.5mm) Lead Length P.C.B. Mounted with 1.1 x 1.1” (30 x 30 mm) Copper Pads

REV.1 Oct.-2003

RATINGS AND CHARACTERISTIC CURVES (TS750 THRU TS758)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

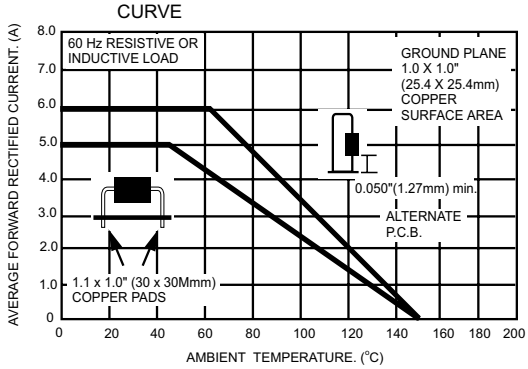


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

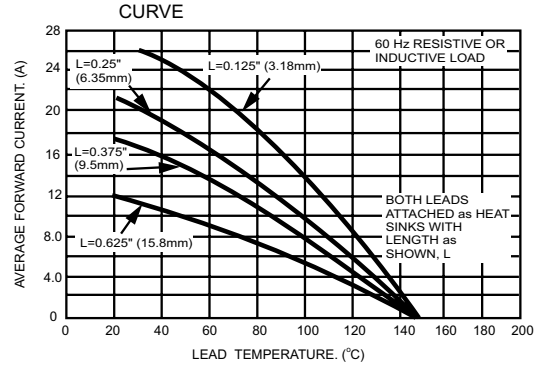


FIG.3- TYPICAL REVERSE CHARACTERISTICS

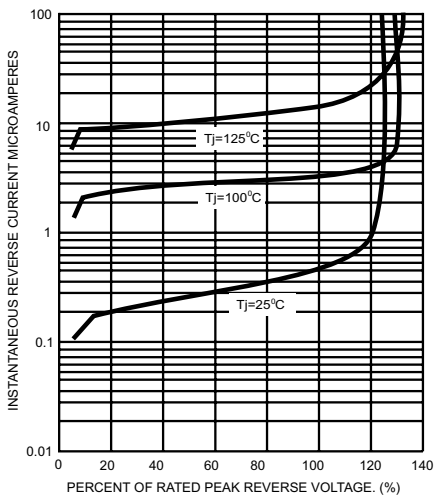


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

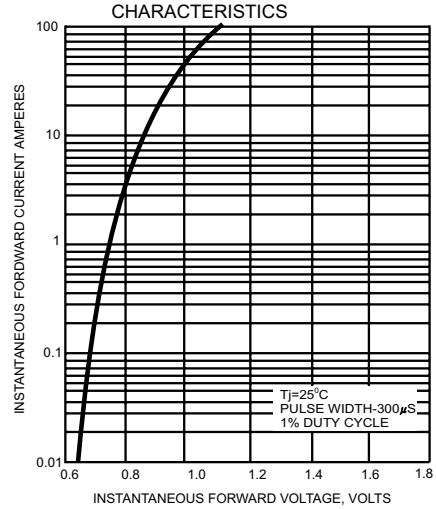


FIG.5- MAXIMUM PEAK FORWARD SURGE CURRENT

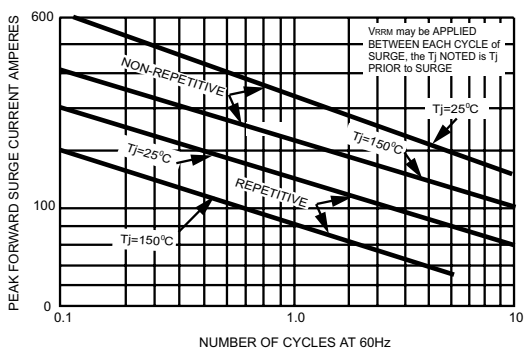


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE