

Voltage Range 50 to 400 V

Current 6.0 Ampere

Features

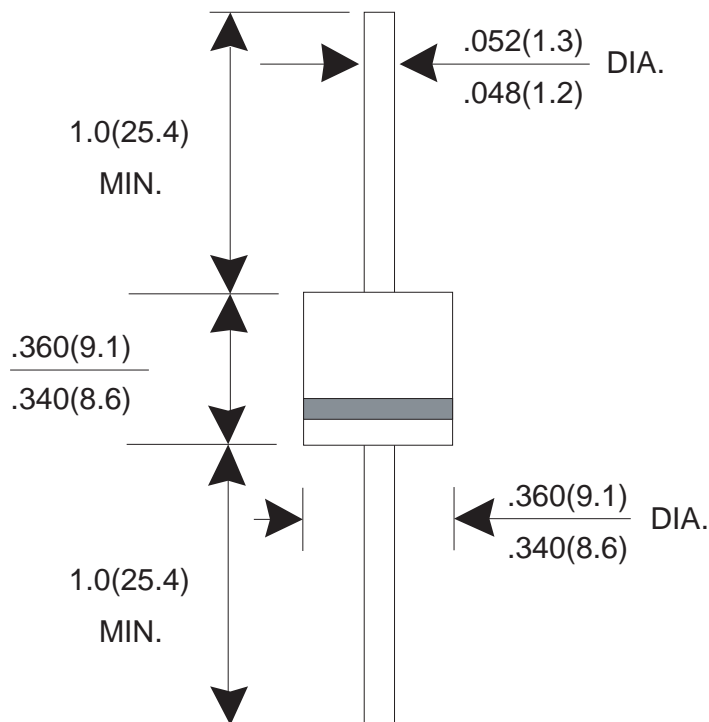
- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Mechanical Data

- * Case: Molded plastic R-6
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202 method 208
- * Polarity: Color band denotes cathode
- * Mounting position: Any
- * Weight: 2.1 grams

Dimensions in inches and (millimeters)

R-6



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMTER	SYMBOL	TSF 601G	TSF 602G	TSF 603G	TSF 604G	TSF 605G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	V
Maximum Average Forward Rectified Current $T_L=55^\circ\text{C}$	IF(AV)	6.0					A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	150					A
Maximum Instantaneous Forward Voltage @ 6.0 A	VF	0.95			1.3		V
Maximum DC Reverse Current @T _J =25°C	IR	6.0					uA
At Rated DC Blocking Voltage @T _J =125°C		250					uA
Maximum Reverse Recovery Time (Note 1)	Trr	35					nS
Typical junction Capacitance (Note 2)	CJ	100					pF
Typical Thermal Resistance (Note 3)	RθJA	55					°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150					°C

NOTES : (1) Reverse recovery test conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$.
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (3) Thermal Resistance junction to lead.

RATING AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

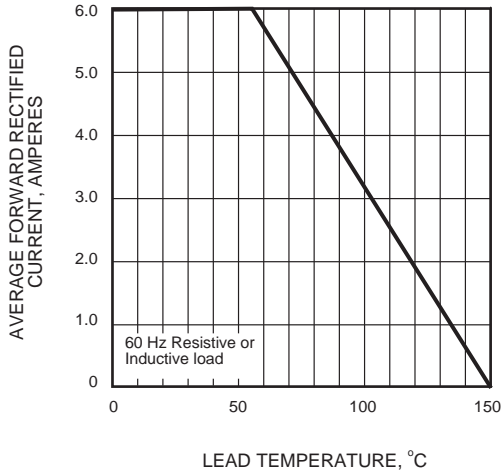


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

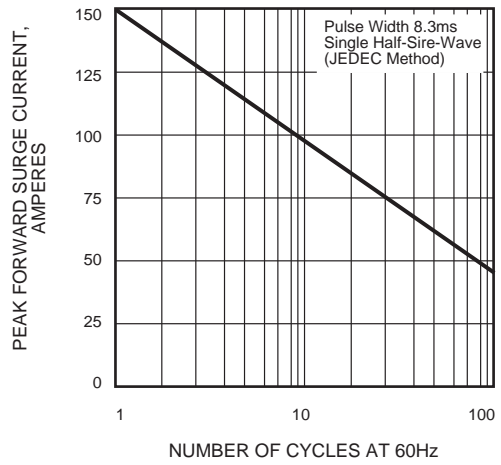


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

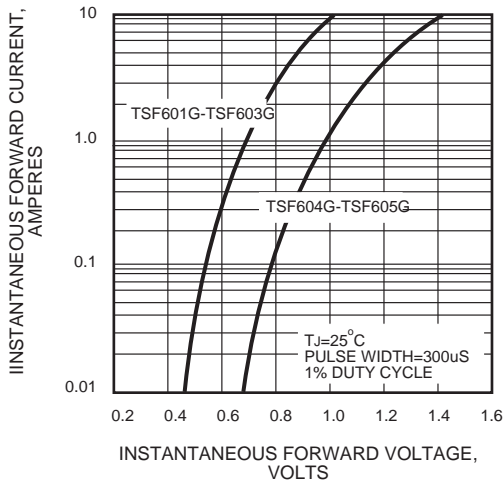


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

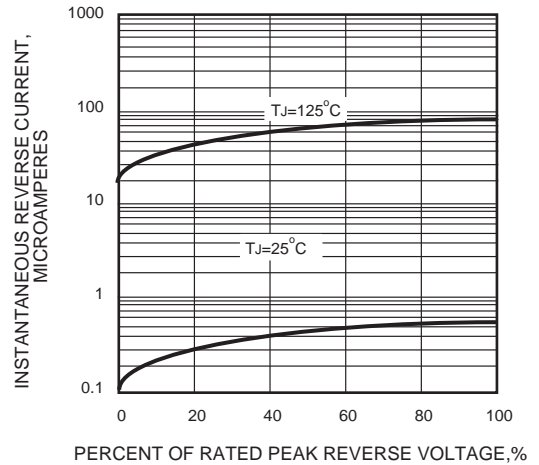


FIG.5 - TYPICAL JUNCTION CAPACITANCE

