

**Voltage Range 50 to 800 V**  
**Current 1.0 Ampere**

**Features**

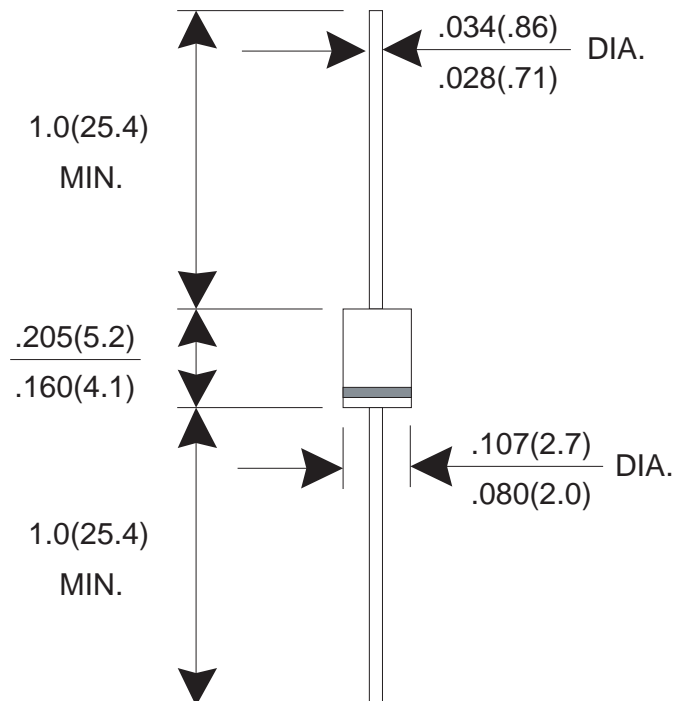
- \* Fast switching for high efficiency
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

**Mechanical Data**

- \* Case: Molded plastic DO-41
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solderable per MIL-STD-202 method 208
- \* Polarity: Color band denotes cathode
- \* Mounting position: Any
- \* Weight: 0.34 gram

**Dimensions in inches and (millimeters)**

**DO-41**



## 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 101G	TSF 102G	TSF 103G	TSF 104G	TSF 105G	TSF 106G	TSF 107G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	800	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified Current $T_L=55^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage @ 1.0 A	$V_F$	0.95		1.25		1.7		V	
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0				100			uA uA
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	35							nS
Typical junction Capacitance (Note 2)	$C_J$	15							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

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

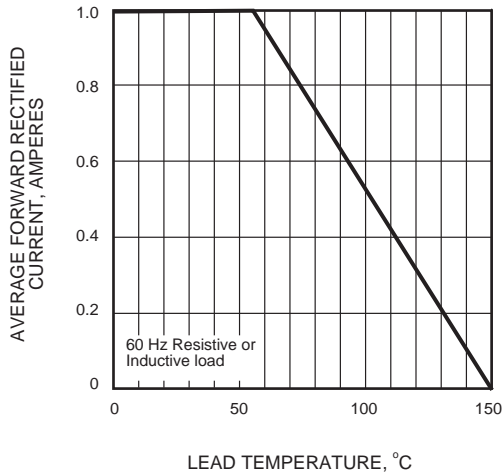


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

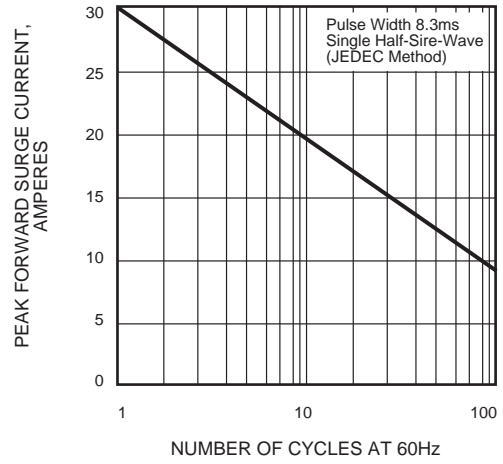


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

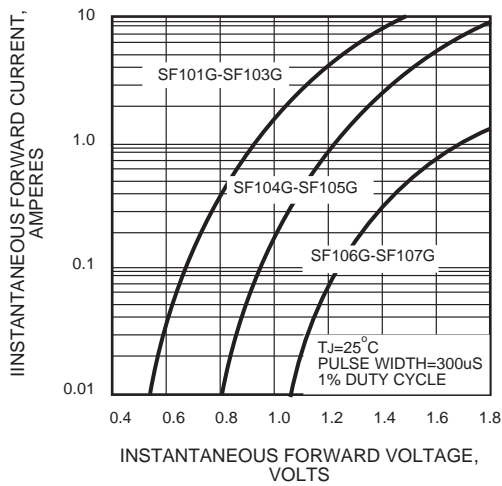


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

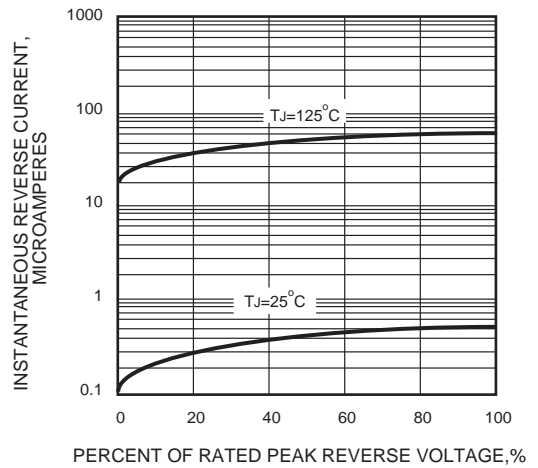


FIG.5 - TYPICAL JUNCTION CAPACITANCE

