

**Voltage Range 50 to 1000 V**

**Current 1.0 Ampere**

**Features**

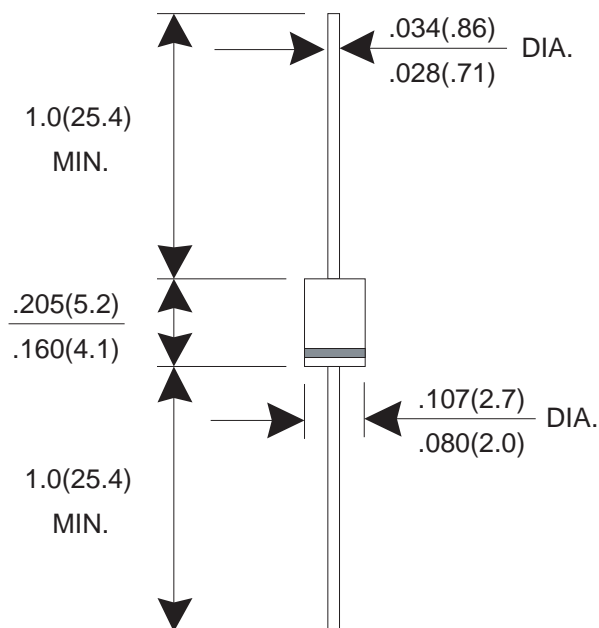
- \* Fast switching for high efficiency
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

**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**



Dimensions in inches and (millimeters)

**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	TFR 101G	TFR 102G	TFR 103G	TFR 104G	TFR 105G	TFR 106G	TFR 107G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_L=55^{\circ}\text{C}$	IF(AV)	1.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	30							A
Maximum Instantaneous Forward Voltage @ 1.0 A	VF	1.3							V
Maximum DC Reverse Current @ $T_J=25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^{\circ}\text{C}$	IR	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		nS
Typical junction Capacitance (Note 2)	CJ	15							pF
Typical Thermal Resistance (Note 3)	RθJA	75							°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

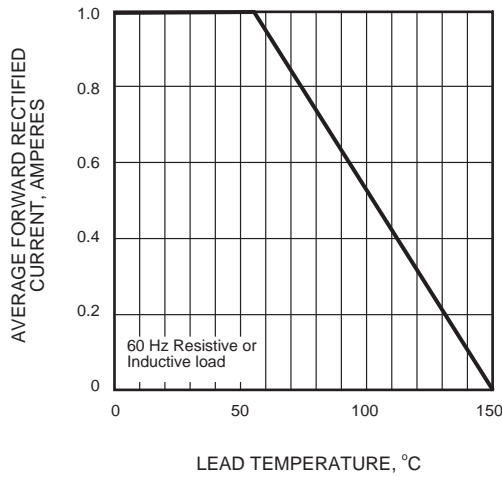


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

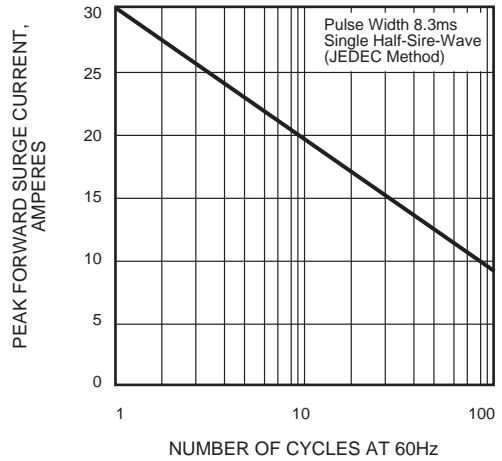


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

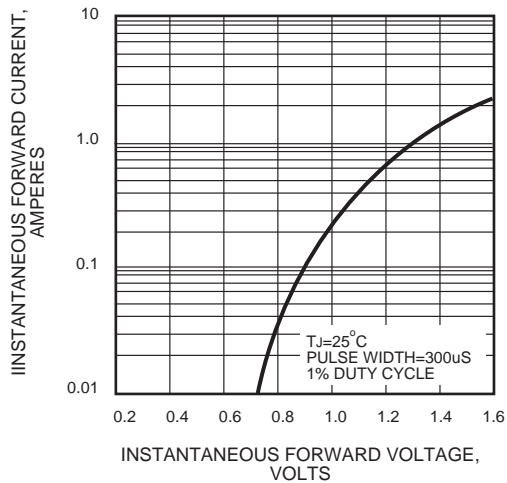


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

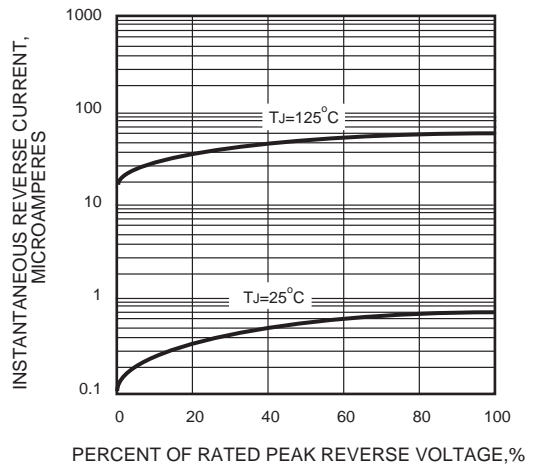


FIG.5 - TYPICAL JUNCTION CAPACITANCE

