



VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.0 Ampere

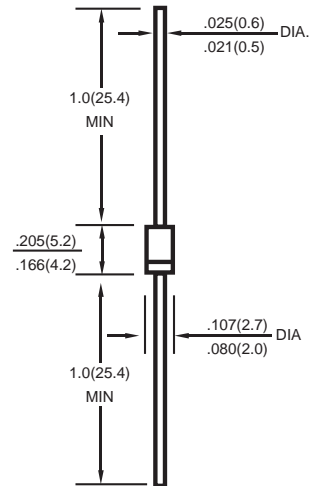
Features

- ✦ Low cost construction
- ✦ Low forward voltage drop
- ✦ Low reverse leakage
- ✦ High forward surge current capability
- ✦ High temperature soldering guaranteed:
260°C/10 seconds/0.375" (9.5mm) lead length
at 5 lbs (2,3kg) tension

Mechanical Data

- ✦ **Case:** Transfer molded plastic
- ✦ **Epoxy:** UL94V-0 rate flame retardant
- ✦ **Polarity:** Color band denotes cathode end
- ✦ **Mounting position:** Any
- ✦ **Weight:** 0.0081 ounce, 0.23 gram

A-405



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load derate current by 20%.

Type Number	SYMBOLS	RL 101	RL 102	RL 103	RL 104	RL 105	RL 106	RL 107	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	5.0							μAmps
	$T_A=100^\circ\text{C}$	50							
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L=75^\circ\text{C}$	$I_{R(AV)}$	30							μAmps
Typical Junction Capacitance(NOTE1)	C_J	15							pF
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175							$^\circ\text{C}$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted with 0.2" X 0.2" (5.0X5.0mm) copper pads.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

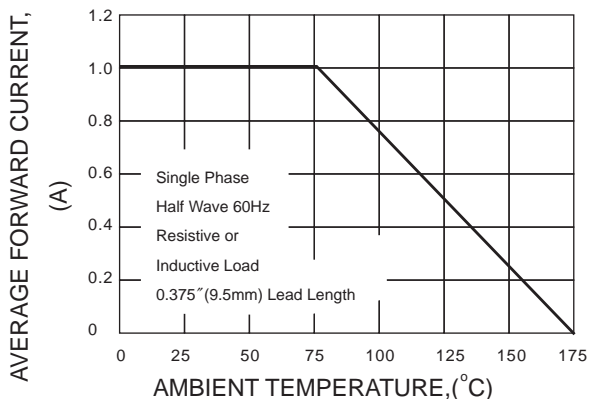


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

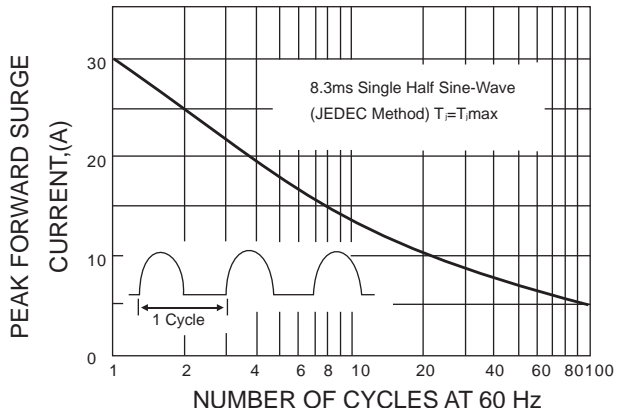


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

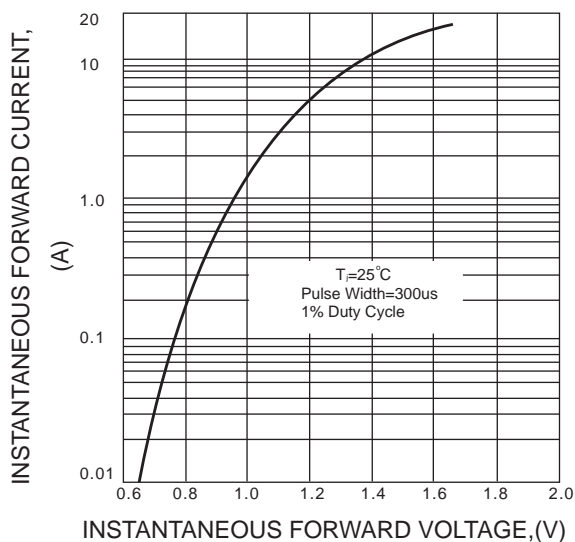


FIG.4-TYPICAL REVERSE CHARACTERISTICS

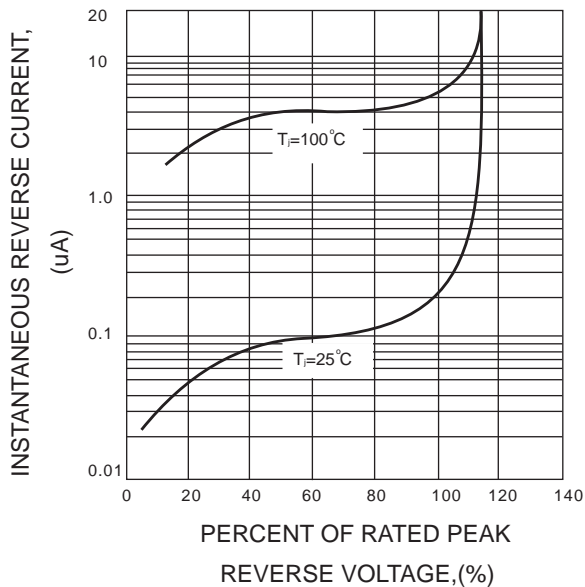


FIG.5-TYPICAL JUNCTION CAPACITANCE

