

PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V

CURRENT: 3.0 A

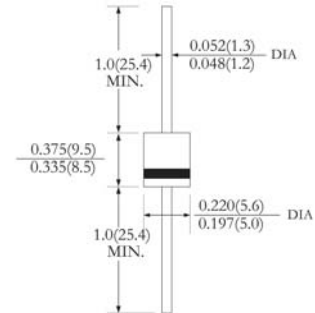
FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- High surge current capability
- 3.0A operation at TL=75°C with no thermal runaway
- Typical IR less than 0.1 μA
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case:JEDEC DO-15 molded plastic body
- Polarity:Color band denotes cathode end
- Mounting Position:Any
- Weight:0.014ounce,0.33 gram

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

	Symbols	1N 5400	1N 5401	1N 5402	1N 5403	1N 5404	1N 5405	1N 5406	1N 5407	1N 5408	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	Volts
Maximum DC Blocking Voltage to $T_A=105^\circ\text{C}$	V_{DC}	50	100	200	300	400	500	600	800	1000	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length, @ $T_A=105^\circ\text{C}$	$I_{(AV)}$	3.0									Amps
Peak Forward Surge Current(8.3ms)half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200									Amps
Maximum Instantaneous Forward Voltage at 3.0 A	V_F	1.0									Volts
Maximum Reverse current at rated DC Blocking Voltage	I_R	$T_A=25\text{ C}$									A
		$T_A=100\text{ C}$									
Typical Thermal Resistance(Note 2)	R_{JA}	40.0									C/W
Typical Junction Capacitance(Note 1)	C_J	50.0									PF
Operating and Storage Temperature Range	T_J	-65 to+150									°C
	T_{STG}										

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance from Junction to Ambient. 375"(9.5mm) lead length.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

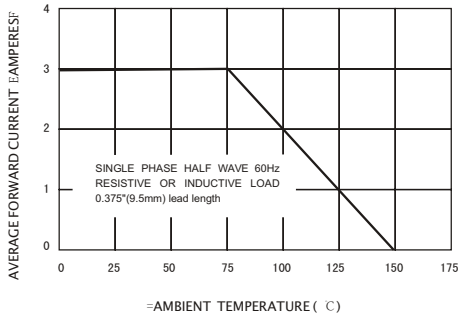


FIG.2-TYPICAL INSTANTANEOUS FORWARD VOLTAGE.(V)

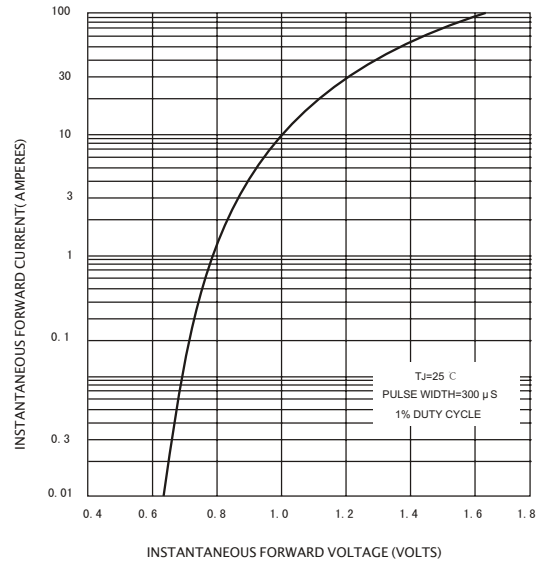


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

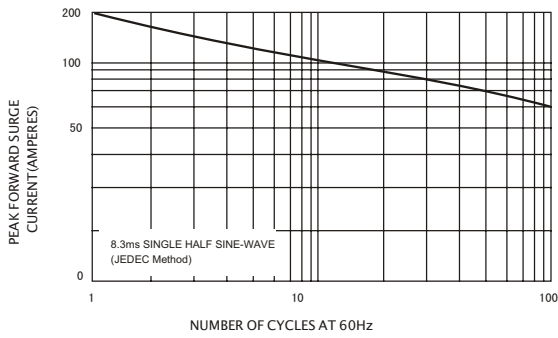


FIG.4-TYPICAL REVERSE CHARACTERISTICS

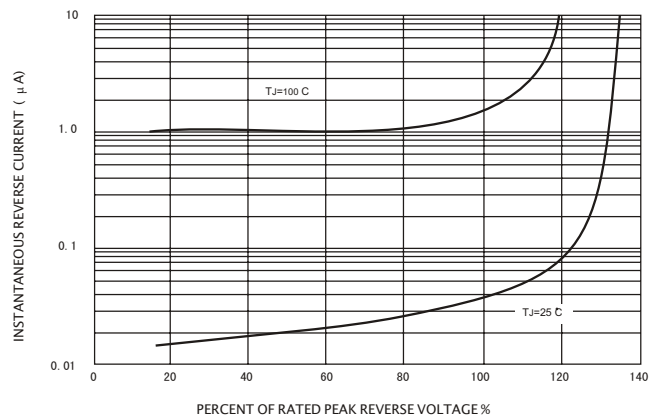


FIG.5-TYPICAL JUNCTION CAPACITANCE

