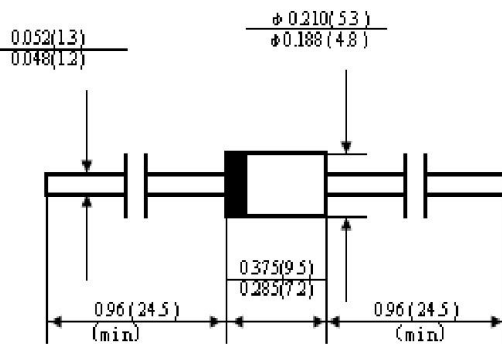


## 3.0AMP PLASTIC SILICON RECTIFIERS

## VOLTAGE RANGE: 50 TO 1000 VOLTS

### DO-27



inch (mm)

### FEATURES

- . Diffused junction
- . Low Leakage
- . Low forward voltage drop
- . High current capability
- . Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- . The plastic material carries U/L recognition 94V-0

### MECHANICAL DATA

- . Case: JEDEC DO-27, molded plastic
- . Terminals: Axial leads. Solderable per MIL - STD - 750, Method 2026
- . Polarity: Color band denotes cathode
- . Weight: 0.042 ounce, 1.19grams
- . Mounting position: Any

### 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%

	SYMBOL	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	500	600	700	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	500	600	700	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length, $T_L = 90^\circ\text{C}$	$I_{(AV)}$	3.0									A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated $T_L = 90^\circ\text{C}$	$I_{FSM}$	200									A
Maximum Forward Voltage at 3.0A DC	$V_F$	1.2									V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	10.0 500.0									$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_j$	30									pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20									$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	- 55 to 125									$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to 150									$^\circ\text{C}$

**NOTE:** 1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC.

2. Thermal resistance junction to ambient.

FIG. 1 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

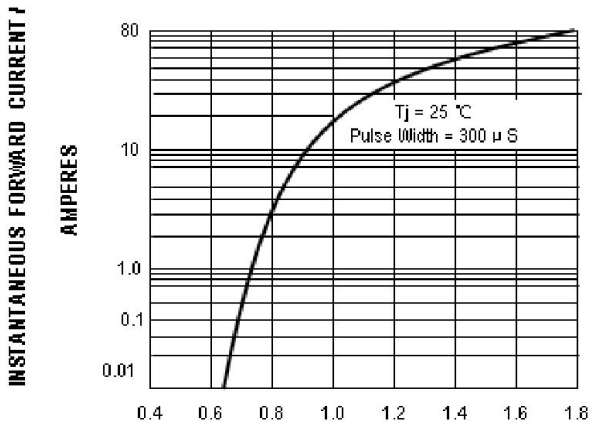


FIG. 2 – TYPICAL REVERSE CHARACTERISTICS

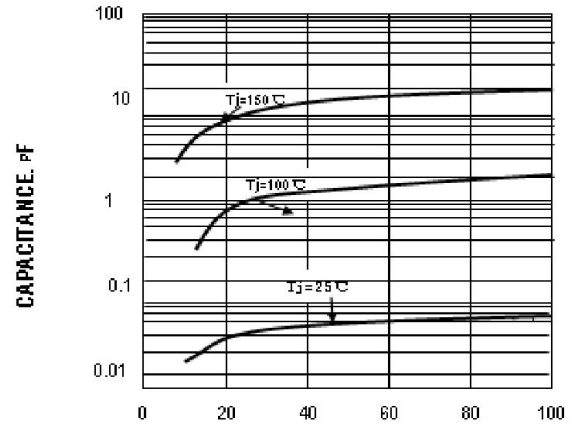


FIG. 3 – FORWARD CURRENT DERATING CURVE

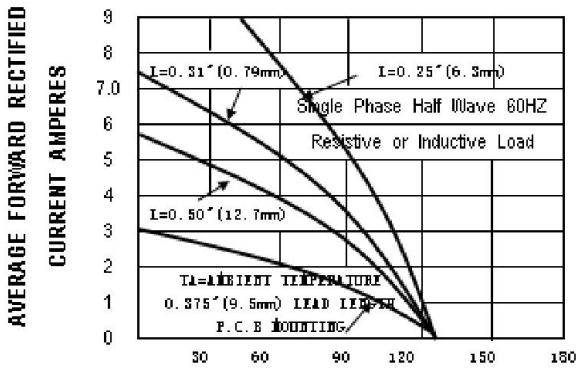


FIG. 4 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

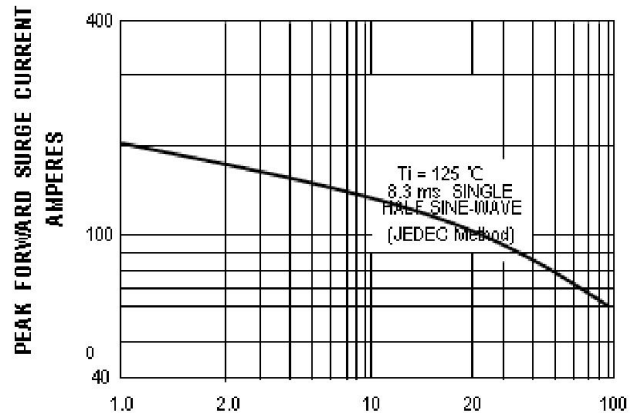


Fig.5-Typical Junction Capacitance

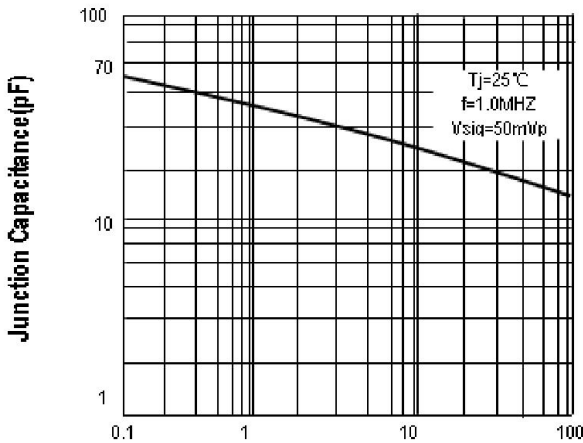


Fig.6-Transient Thermal Impedance

