



GENERAL PURPOSE SILICON RECTIFIER

1N5400

THRU

1N5408

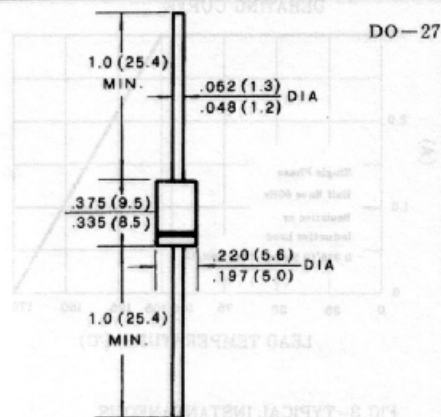
FEATURES

- Low cost construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed;
260°C/10 seconds/.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
- Lead; Plated axial lead, solderable per MIL-STD-202E
method 208C
- Mounting position; Any
- Weight; 0.042 ounce, 1.19 grams

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 3.0 Amperes



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%.

		SYMBOLS	1N 5400	1N 5401	1N 5402	1N 5404	1N 5406	1N 5407	1N 5408	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 0.5"(12.5mm) lead length at $T_L=105^{\circ}\text{C}$		$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine—wave superimposed on rated load (JEDEC Method)		I_{FSM}	200							Amps
Maximum Instantaneous Forward Voltage at 3.0A		V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^{\circ}\text{C}$	I_R	10							μAmps
	$T_A=150^{\circ}\text{C}$		500							
Maximum Full Load Reverse Current, full cycle average 0.5" (12.5mm) lead length at $T_L=105^{\circ}\text{C}$		$I_{R(AV)}$	500							μAmps
Typical Junction Capacitance (NOTE 1)		C_j	40							pF
Typical Thermal Resistance (NOTE 2)		$R_{\theta JA}$	30							$^{\circ}\text{C/W}$
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 0.5" (12.5mm) lead length, P. C. board mounted with 0.8" $\times$ 0.8" (20.0 $\times$ 20.0mm) copper heatsink.

RATINGS AND CHARACTERISTIC CURVES IN5400 THRU IN5408

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

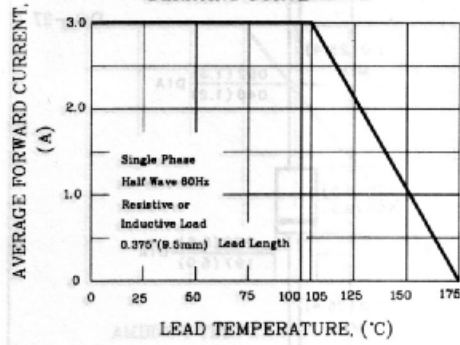


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

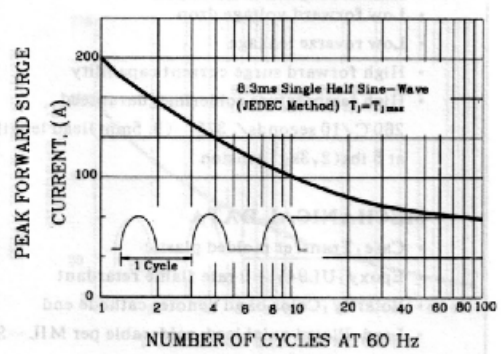


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

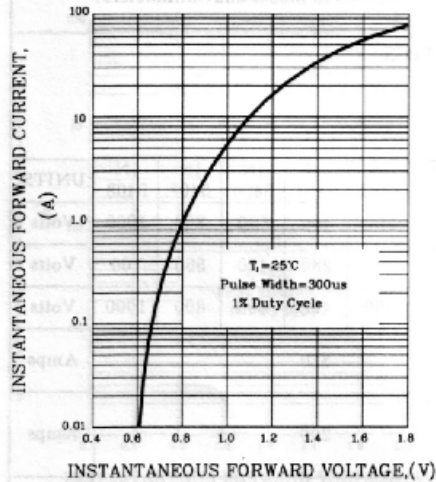


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

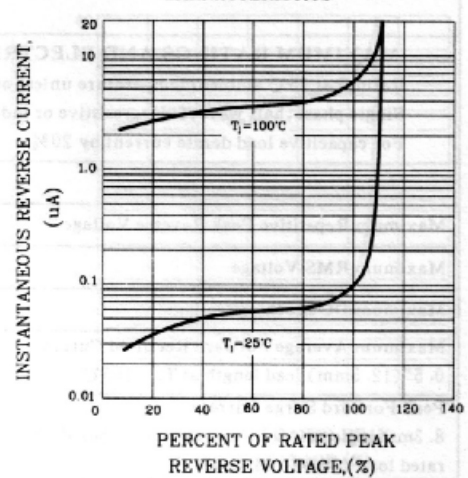


FIG.5-TYPICAL JUNCTION CAPACITANCE

