3 AMP SILICON RECTIFIERS

1N5400 THRU 1N5408

TECHNICAL SPECIFICATION

FEATURES

- *Low cost construction utilizing void - free moulded plastic technique*
- *Plastic package has Underwriters Laboratories Flammability Classification 94V-0*
- *3.0 Ampere operation at T_L = 105°C with no thermal runaway*
- *High surge current capability*
- *Typical I_R less than 0.1µA*
- *High temperature soldering capability : 250°C/10 seconds/9.5mm (.375in.) lead length at 2.3kg (5lb) tension*
- *Easily cleaned with Freon, Alcohol, Chlorothene and other similar solvents*

VOLTAGE
50 to 1000 Volts

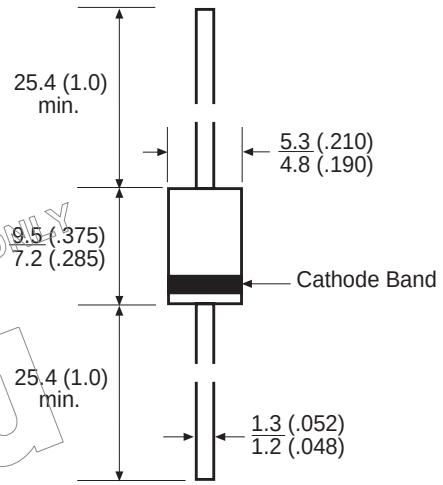
CURRENT
3.0 Amps

MECHANICAL DATA

Case	: JEDEC DO-27, moulded plastic.
Terminals	: Plated axial leads, solderable per MIL-STD-202, Method 208.
Polarity	: Colour band denotes cathode end.
Mounting Position	: Any
Weight	: 1.1 grams (0.04 ounce)

DIMENSIONS - millimeters (inches)

DO-27



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		Symbols	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage to T_A = 150°C		V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 12.7mm (.5in.) Lead Length at T_L = 105°C		$I_{F(AV)}$	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load		I_{FSM}	200							A
Maximum Instantaneous Forward Voltage at 3.0A		V_F	1.2							V
Maximum Reverse Current at Rated DC Blocking Voltage	T_A = 25°C	I_R	10							µA
	T_A = 150°C		500							µA
Maximum Full load Reverse Current Full Cycle Average, 12.7mm (.5in.) Lead Length at T_L = 105°C		$I_{R(AV)}$	500							µA
Typical Junction Capacitance (see Note 1)		C_J	30							pF
Typical Thermal Resistance (see Note 2)		R_{THja}	15							°C/W
Operating Temperature Range		T_J	- 50 to + 170							°C
Storage Temperature Range		T_{STG}	- 50 to + 175							°C

Notes :
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal Resistance from Junction to Ambient

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

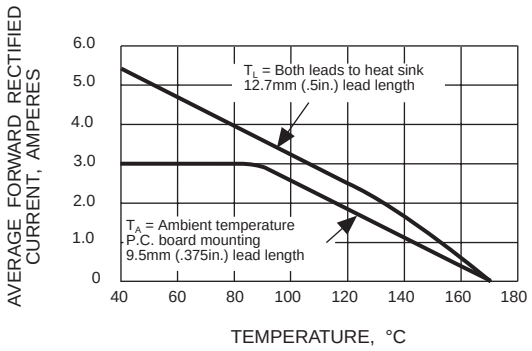

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

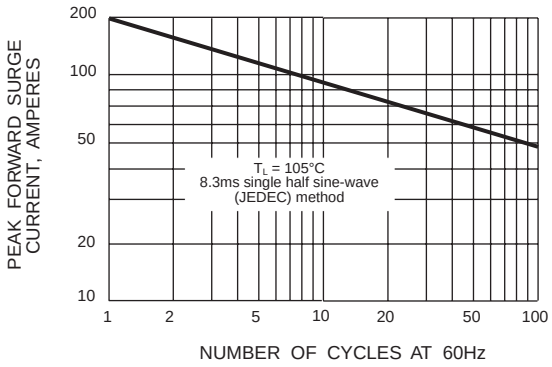

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

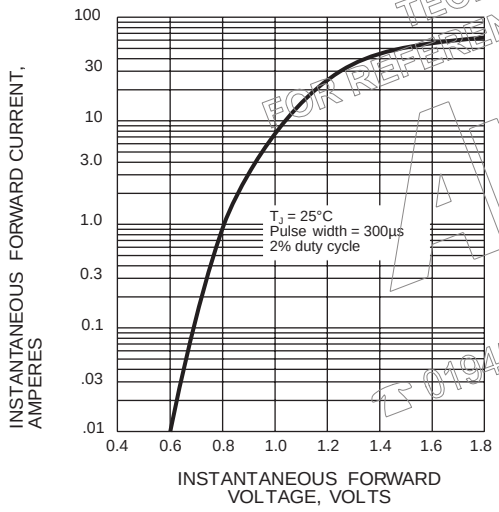

FIG. 4 - TYPICAL JUNCTION CAPACITANCE

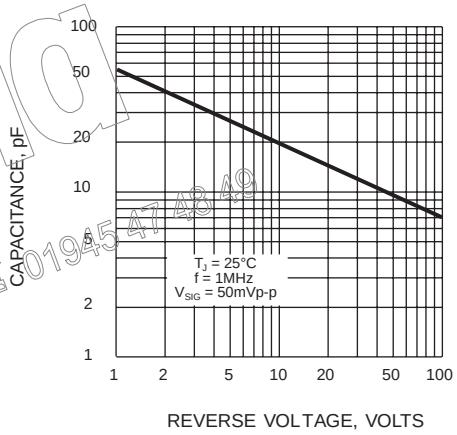

FIG. 5 - TYPICAL REVERSE CHARACTERISTICS