



3 AMP SILICON RECTIFIERS 1N5400 THRU 1N5408

TECHNICAL SPECIFICATION

<p>FEATURES</p> <ul style="list-style-type: none"> ● Low cost construction utilizing void - free moulded plastic technique ● Plastic package has Underwriters Laboratories Flammability Classification 94V-0 ● 3.0 Ampere operation at $T_L = 105^\circ\text{C}$ with no thermal runaway ● High surge current capability ● Typical I_R less than $0.1\mu\text{A}$ ● High temperature soldering capability : $250^\circ\text{C}/10$ seconds/9.5mm (.375in.) lead length at 2.3kg (5lb) tension ● Easily cleaned with Freon, Alcohol, Chlorothene and other similar solvents <hr style="width: 20%; margin-left: 0;"/> <p>MECHANICAL DATA</p> <p>Case : JEDEC DO-27, moulded plastic</p> <p>Terminals : Plated axial leads, solderable per MIL-STD-202, Method - 208.</p> <p>Polarity : Colour band denotes cathode end.</p> <p>Mounting Position : Any</p> <p>Weight : 1.1 grams (0.04 ounce)</p>	<p style="text-align: center;">VOLTAGE 50 to 1000 Volts</p> <p style="text-align: right;">CURRENT 3.0 Amps</p> <p style="text-align: center;">DIMENSIONS - millimeters (inches)</p> <p style="text-align: right;">DO-27</p>
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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 $T_A = 150^\circ\text{C}$	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 12.7mm (.5in.) Lead Length at $T_L = 105^\circ\text{C}$	$I_{F(AV)}$	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	I_R	$T_A = 25^\circ\text{C}$							μA
		$T_A = 150^\circ\text{C}$							μA
Maximum Full load Reverse Current Full Cycle Average, 12.7mm (.5in.) Lead Length at $T_L = 105^\circ\text{C}$	$I_{R(AV)}$	500							μA
Typical Junction Capacitance (see Note 1)	C_J	30							pF
Typical Thermal Resistance (see Note 2)	R_{THja}	15							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	- 50 to + 170							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 50 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

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

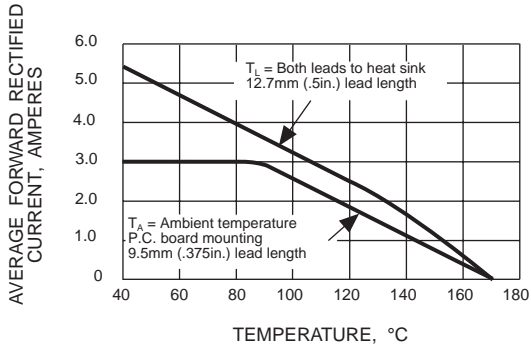


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

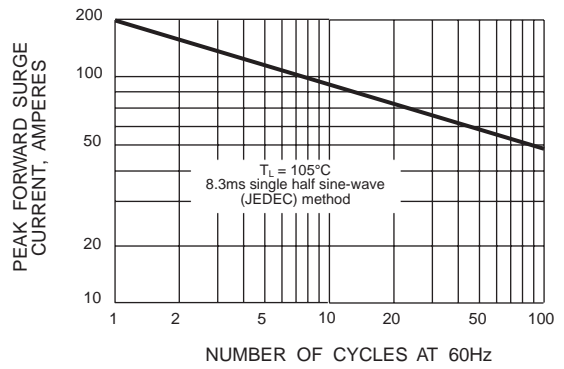


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

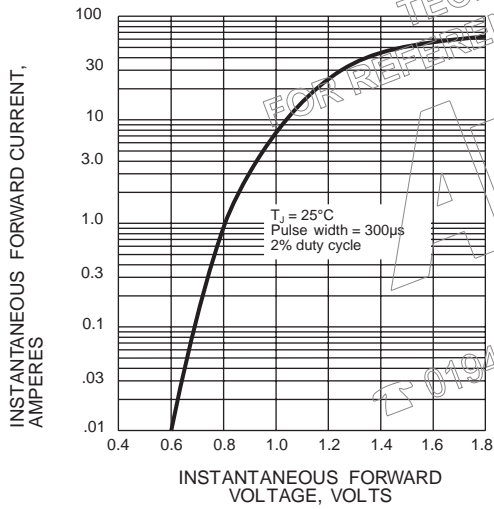


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

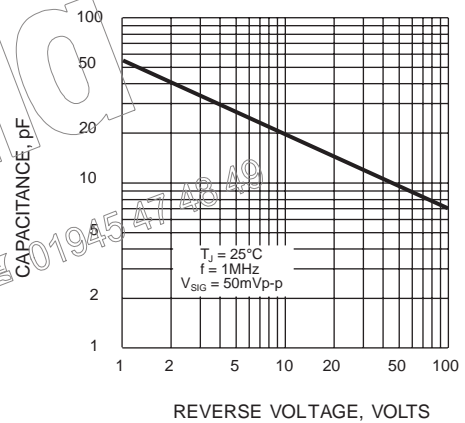


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

