



1N5400 THRU 1N5408

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 3.0 AMPERES

FEATURES

- High current capability
- Plastic package has Underwriters Laboratory
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- Suffix "H" indicates Halogen-free parts, ex. 1N5400H

MECHANICAL DATA

Case : Molded plastic, DO-201AD

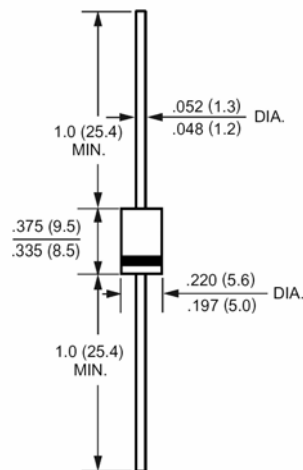
Epoxy : UL 94V-O rate flame retardant

Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity : Color band denotes cathode end

Mounting position : Any

DO-201AD



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%.

Parameter	Symbols	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	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	V_{DC}	50	100	200	300	400	500	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	3.0									Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200.0									Amp
Maximum Forward Voltage at 3.0A DC and 25°C	V_F	1.0									Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$	I_R	5.0 100									uAmp
Typical Junction Capacitance (Note 1)	C_J	50									pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40.0									°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150									°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted with 0.8x0.8" (20x20mm) copper pads.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

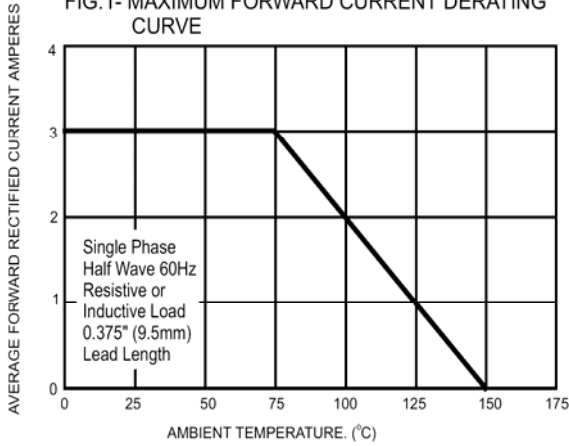


FIG.2- TYPICAL REVERSE CHARACTERISTICS

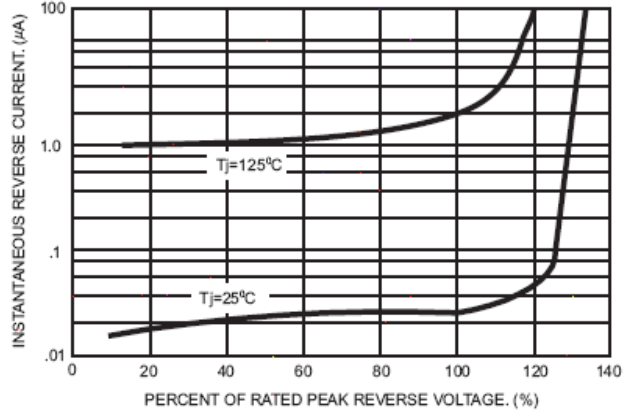


FIG.3- MAXIMUM REPETITIVE FORWARD SURGE CURRENT

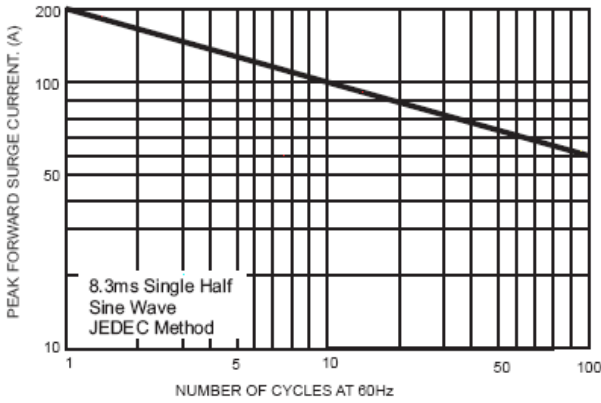


FIG.4- TYPICAL JUNCTION CAPACITANCE

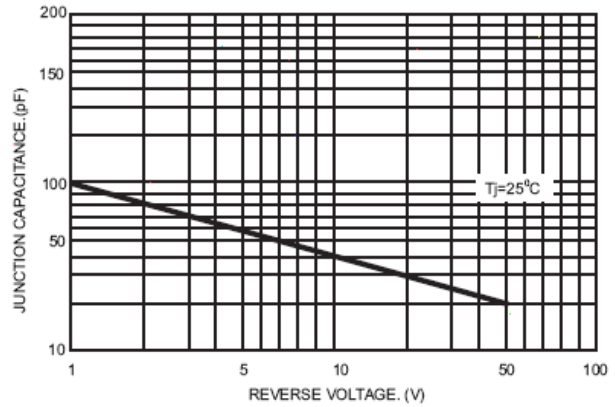


FIG.5- TYPICAL FORWARD CHARACTERISTICS

