

# 1N5400 THRU 1N5408

## GENERAL PURPOSE PLASTIC SILICON RECTIFIER

Reverse Voltage – 50 to 1000 V

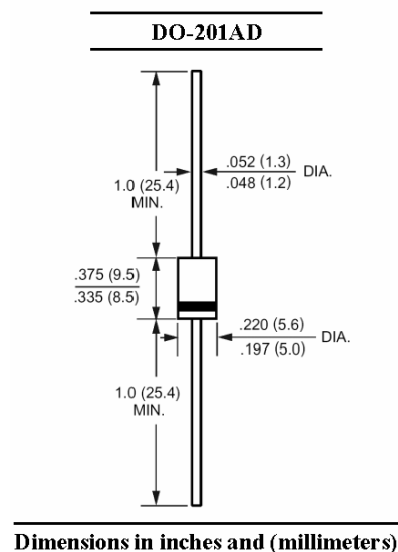
Forward Current – 3 A

### Features

- High current capability
- Low leakage current

### Mechanical Data

- Case: Molded plastic, DO-201AD
- Terminals: Plated axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



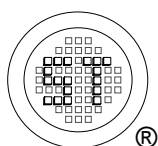
### Absolute Maximum Ratings and Characteristics

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%.

Parameter	Symbols	1N 5400	1N 5401	1N 5402	1N 5403	1N 5404	1N 5405	1N 5406	1N 5407	1N 5408	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	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	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	3									A
Peak Forward Surge Current, 8.3 ms Single Half-sine-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	200									A
Maximum Forward Voltage at 3 A DC	$V_F$	1.1									V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	5 1000									$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	50									pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	18									$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	-55 to +150									$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150									$^\circ\text{C}$

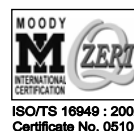
<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 VDC.

<sup>2)</sup> Thermal resistance junction to ambient and junction to lead at 0.375" (9.5 mm) lead length P.C.B mounted with 0.8 X 0.8" (20 X 20 mm) copper pads.



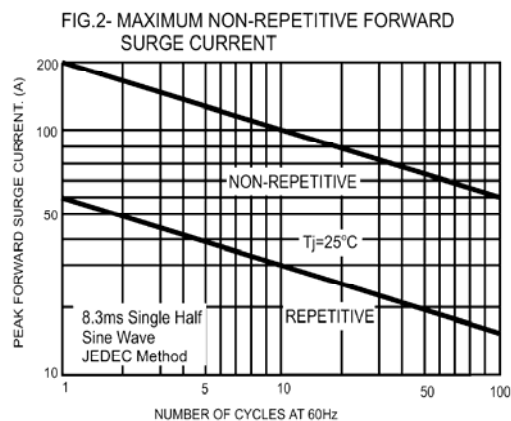
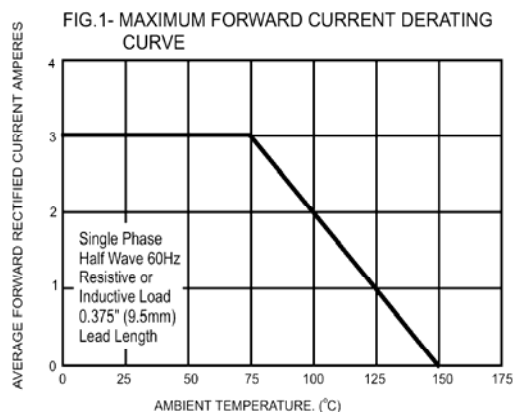
**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company  
listed on the Hong Kong Stock Exchange, Stock Code: 724)

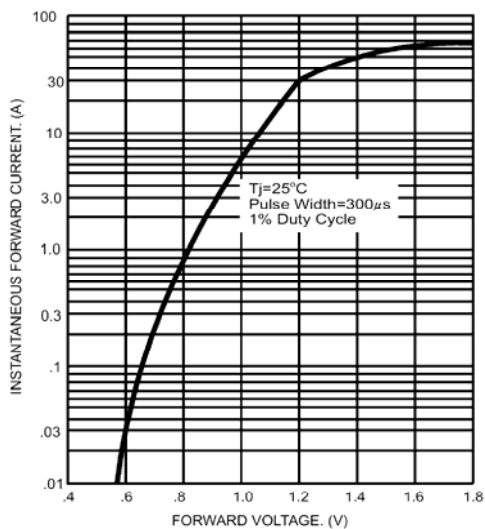


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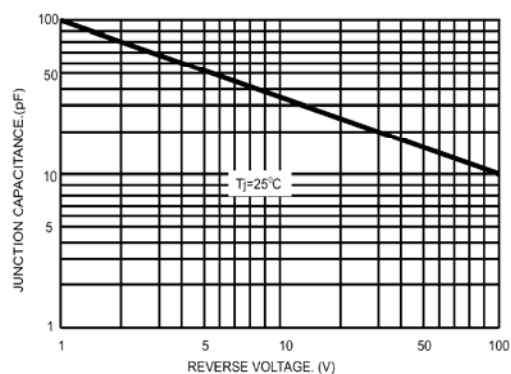
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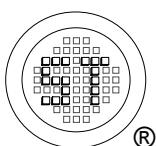
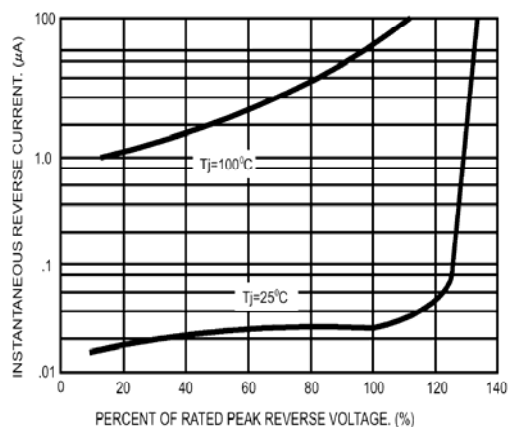
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
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