

# 1N5400-1N5408

## GENERAL PURPOSE RECTIFIERS

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS

Parameter	Symbol	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	Unit
Maximum repetitive 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, .05" lead length @ $T_L = 105^\circ\text{C}$	$I_{F(AV)}$	3.0									A
Peak forward surge current 8.3ms single half-sine wave superimposed on rated load	$I_{FSM}$	200									A
Maximum full load reverse current, full cycle average 0.5" lead length @ $T_L = 105^\circ\text{C}$	$I_{R(AV)}$	500									$\mu\text{A}$
Operating junction and storage temperature range	$T_J, T_{stg}$	-50 to +150									$^\circ\text{C}$
Power dissipation	$P_D$	6.25									W
Thermal resistance, junction to ambient	$R_{\theta JA}$	20									$^\circ\text{C}/\text{W}$

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

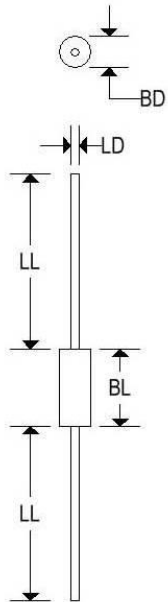
Parameter	Symbol	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	Unit
Maximum instantaneous forward voltage @ 3.0A	$V_F$	1.2									V
Maximum full load reverse current, full cycle $T_A = 105^\circ\text{C}$	$I_{rr}$	0.5									mA
Maximum DC reverse current @ rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 150^\circ\text{C}$	$I_R$	5.0 500									$\mu\text{A}$
Typical junction capacitance $V_R = 4.0\text{V}, f = 1.0\text{MHz}$	$C_T$	30									pF

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### MECHANICAL CHARACTERISTICS

Case	DO-201A
Marking	Alpha numeric
Polarity	Cathode band



	DO-201A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.190	0.260	4.826	6.604
BL	0.285	0.375	7.240	9.530
LD	0.048	0.052	1.219	1.321
LL	1.000	-	25.400	-

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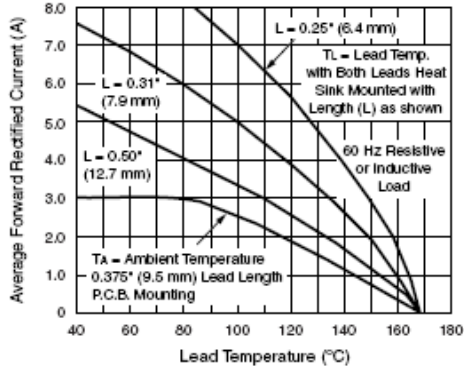


Figure 1. Forward Current Derating Curve

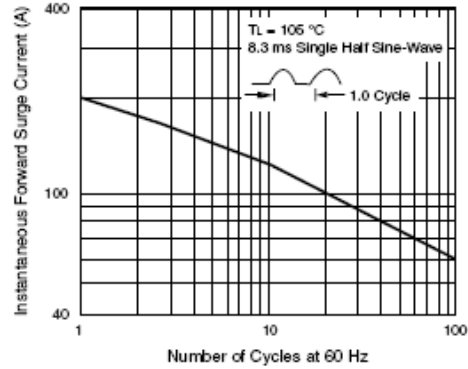


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

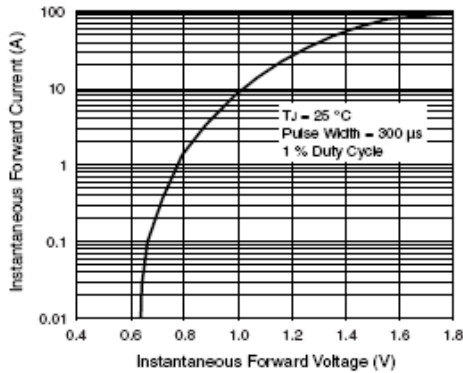


Figure 3. Typical Instantaneous Forward Characteristics

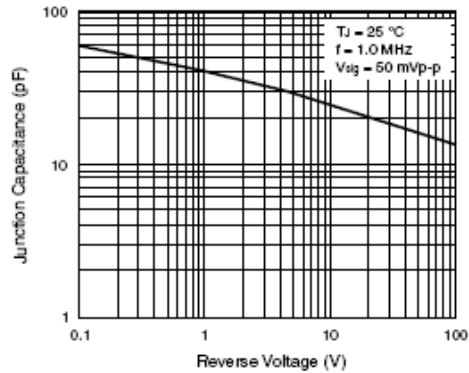


Figure 5. Typical Junction Capacitance

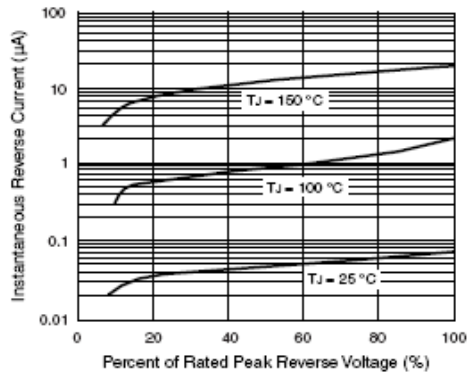


Figure 4. Typical Reverse Characteristics

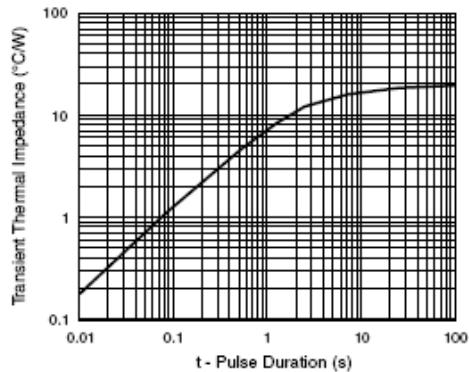


Figure 6. Typical Transient Thermal Impedance