

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	1N									Unit
		5400	5401	5402	5403	5404	5405	5406	5407	5408	
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									μA
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									$^\circ\text{C/W}$

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

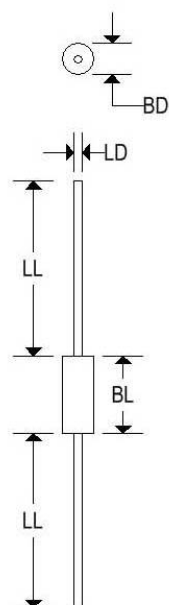
Parameter	Symbol	1N									Unit
		5400	5401	5402	5403	5404	5405	5406	5407	5408	
Maximum instantaneous forward voltage @ 3.0A	V_F	1.2									V
Maximum full load reverse current, full cycle $T_A = 105^\circ\text{C}$	I_{rr}	0.5									mA
Maximum DC reverse current @ rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 150^\circ\text{C}$	I_R	5.0 500									μA
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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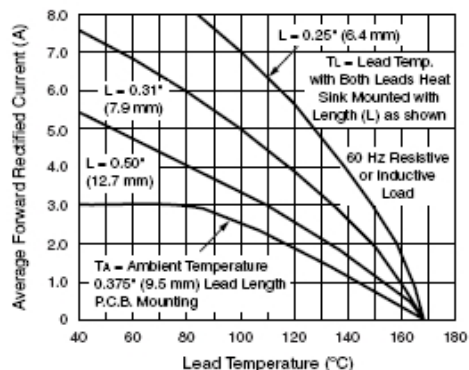


Figure 1. Forward Current Derating Curve

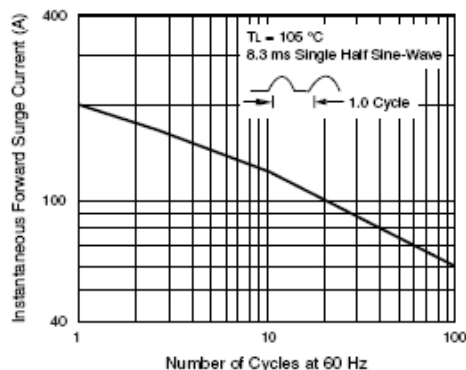


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

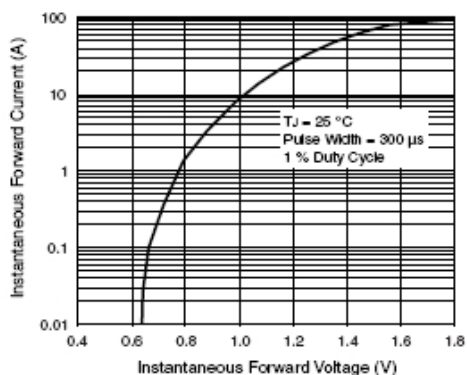


Figure 3. Typical Instantaneous Forward Characteristics

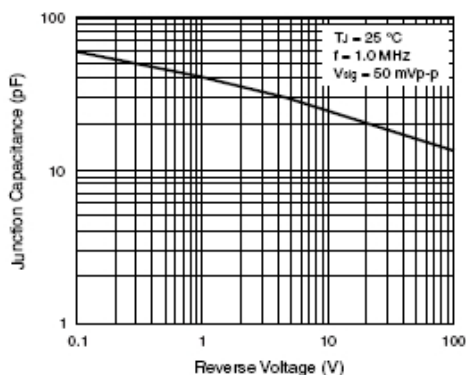


Figure 5. Typical Junction Capacitance

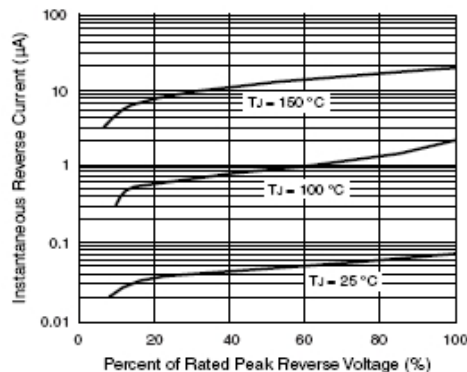


Figure 4. Typical Reverse Characteristics

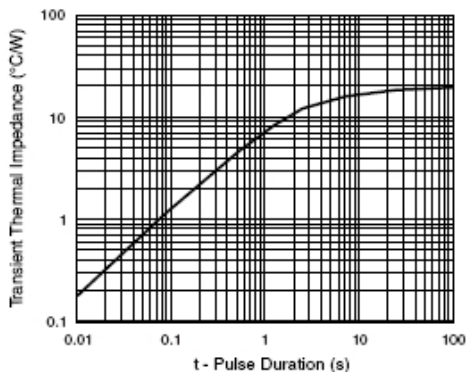


Figure 6. Typical Transient Thermal Impedance