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1N4001 thru 1N4008

General Purpose Plastic Rectifiers
Reverse Voltage 50 to 1200V Forward Current 1.0A

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	1N4008	Unit
device marking code		1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	1N4008	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	V
Maximum RSM voltage	V_{RSM}	35	70	140	280	420	560	700	840	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1200	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30								A
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	30								μA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50								$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150								$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	1N4008	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.10								V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	I_R	5.0 50								μA
Typical junction capacitance at 4.0V, 1MHz	C_J	15								PF

NOTES:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

