



american

power devices, inc.

1N5400-1N5408

3A standard recovery epoxy silicon rectifiers

FEATURES

- Low cost plastic package
- High current operation, 3A @ $T_A = 105^\circ\text{C}$
- High surge current capability
- Low forward voltage drop

MAXIMUM RATINGS

- Junction Temperature -65°C to $+175^\circ\text{C}$
- Storage Temperature -65°C to $+175^\circ\text{C}$
- Max. Avg Forward Current: 3.0A @ 105°C
1.5A @ 140°C
- Max. Overload Surge Current: 200A, one cycle, non-repetitive
- Forward Voltage @ 3 A: 1.2 Volts max.
- Max. DC Reverse Current at Rated DC Blocking Voltage: $10\ \mu\text{A}$ @ 25°C and $500\ \mu\text{A}$ @ 150°C

MECHANICAL CHARACTERISTICS

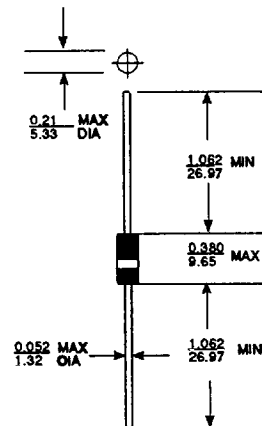


FIGURE 1 all dimensions in INCH mm

CASE: Epoxy molded case.
FINISH: External leads are tin plated and solderable.
THERMAL RESISTANCE: 53°C/W junction to ambient, 0.5-in leads.
POLARITY: Cathode banded.
WEIGHT: 1.1 grams (typ).

ELECTRICAL CHARACTERISTICS @ 25°C

Type	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
	V_{RRM}	V_{RMS}	V_R
	Volts	Volts	Volts
1N5400	50	35	50
1N5401	100	70	100
1N5402	200	140	200
1N5403	300	210	300
1N5404	400	280	400
1N5405	500	350	500
1N5406	600	420	600
1N5407	800	560	800
1N5408	1000	700	1000

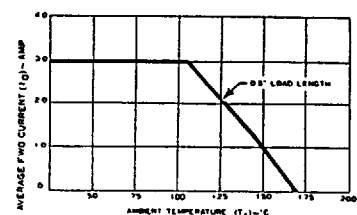


Figure 2 CURRENT DERATING



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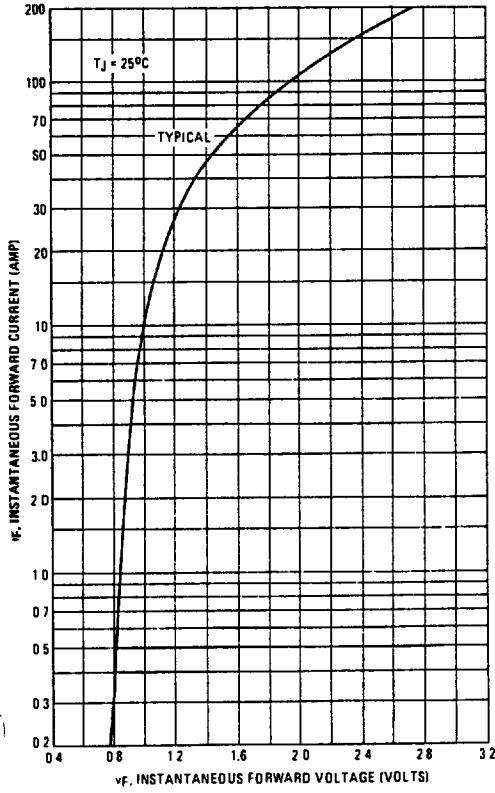


Figure 3 FORWARD VOLTAGE

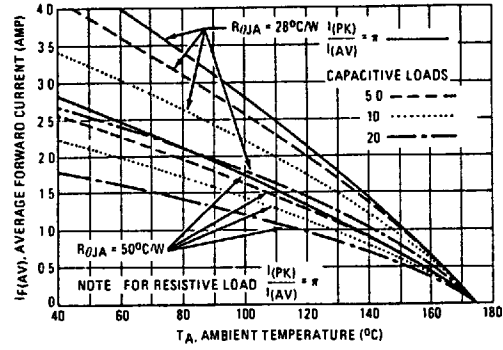


Figure 4 CURRENT DERATING PC BOARD MOUNTING

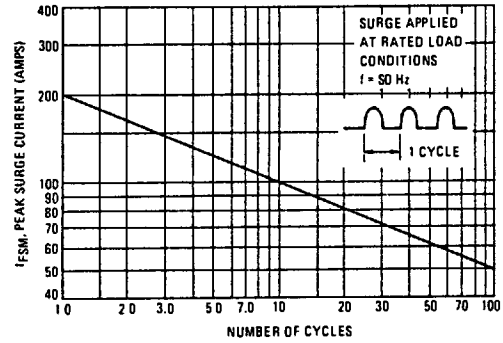
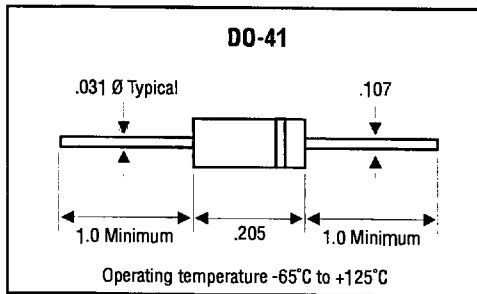


Figure 5 MAXIMUM NONREPETITIVE SURGE CURRENT

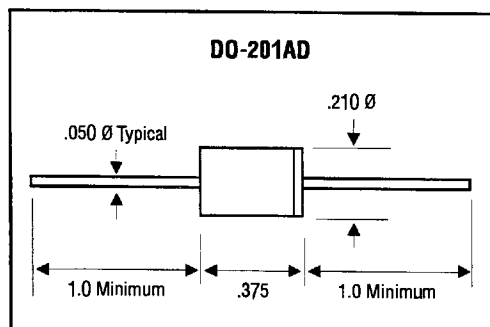
SCHOTTKY BARRIER PLASTIC RECTIFIERS

1.0mA				
Part #	Peak Inverse Voltage	Peak Forward Surge Current @ 8.3ms Superimposed	Maximum Forward Voltage @ Ta 25°C @ Rated Io	Maximum Reverse Current @ 25°C @ Rated PIV
	PIV (V)	I _{FSM} (A)	V _{FW} (V)	I _R (μA)
1N6263	60	50 mA	0.41 @ 1mA	0.2 @ 500 V
SD101A	60	2	1.00 @ 15 mA	0.2 @ 50 V
SD101B	50	2	0.95 @ 15 mA	0.2 @ 40 V
SD101C	40	2	0.90 @ 15 mA	0.2 @ 30V
SD103A	40	15	0.60 @ 200 mA	5 μA @ 40 V
SD103B	30	15	0.60 @ 200 mA	5 μA @ 20 V
SD103C	20	15	0.60 @ 200 mA	5 μA @ 10 V
1N5817	20	25	0.450	1.0
1N5818	30	25	0.550	1.0
1N5819	40	25	0.600	1.0
TSR120	20	40	0.550	1.0
TSR130	30	40	0.550	1.0
TSR140	40	40	0.550	1.0
TSR150	50	40	0.700	1.0
TSR160	60	40	0.700	1.0
TSR190	90	50	0.790	1.0
TSR1100	100	50	0.790	1.0



PASSIVATED PLASTIC RECTIFIERS

3.0A				
Part #	Peak Inverse Voltage	Peak Forward Surge Current @ 8.3ms Superimposed	Maximum Forward Voltage @ Ta 25°C @ Rated Io	Maximum Reverse Current @ 25°C @ Rated PIV
	PIV (V)	I _{FSM} (A)	V _{FW} (V)	I _R (μA)
1N5400	50	100	1.10	5.0
1N5400G	50	200	1.20	5.0
1N5401	100	100	1.10	5.0
1N5401G	100	200	1.20	5.0
1N5402	200	100	1.10	5.0
1N5402G	200	200	1.20	5.0
1N5404	400	100	1.10	5.0
1N5404G	400	200	1.20	5.0
1N5406	600	100	1.10	5.0
1N5406G	600	200	1.20	5.0
1N5407	800	100	1.10	5.0
1N5407G	800	200	1.20	5.0
1N5408	1000	100	1.10	5.0
1N5408G	1000	200	1.20	5.0



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