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1A GENERAL PURPOSE PLASTIC RECTIFIER

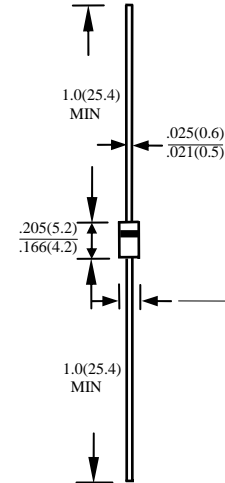
1N4001S THRU 1N4007S

FEATURES

- 0.6 mm LEAD DIAMETER SUITABLE FOR AUTO INSERTION
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- DIFFUSED JUNCTION
- HIGH SURGE CURRENT CAPABILITY

MECHANICAL DATA

- CASE: TRANSFER MOLDED, A-405, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEAD: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.20 GRAMS



MAXIMUM RATINGS AND ELECTRICAL 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%

RATINGS	SYMBOL	1N4001S	1N4002S	1N4003S	1N4004S	1N4005S	1N4006S	1N4007S	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375" (9.5mm) LEAD LENGTH AT TA=55 °C	I_O	1.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	30							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	15							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	50							°C / W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 175							°C
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 175							°C

ELECTRICAL CHARACTERISTICS (AT TA =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	1N4001S	1N4002S	1N4003S	1N4004S	1N4005S	1N4006S	1N4007S	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.1							V
MAXIMUM REVERSE CURRENT AT 25 °C	I_R	5							μA
MAXIMUM REVERSE CURRENT AT 100 °C	I_R	50							μA

- NOTE: 1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTACHED TO HEAT SINK 20x20x1t (mm) COPPER PLATE AT LEAD LENGTH 5mm

Fig. 1-MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA.
RESISTIVE/INDUCTIVE

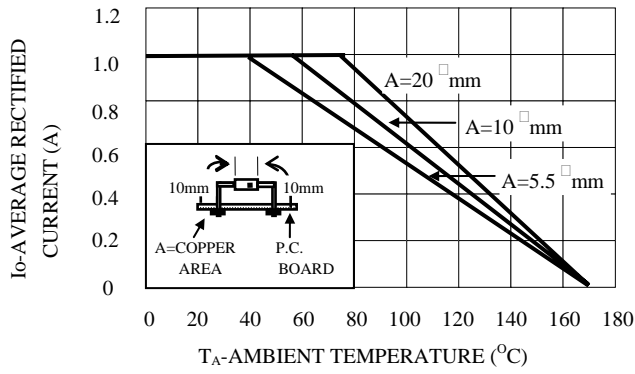


Fig. 2-MAXIMUM CURRENT RATING
CAPACITIVE LOAD, 10 mm LEAD LENGTHS

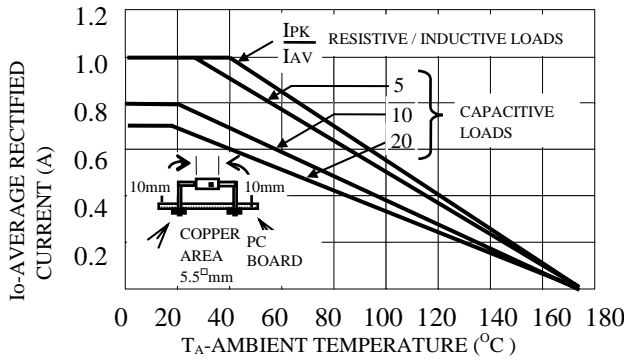


Fig. 3 MAXIMUM CURRENT RATING
EFFECT OF LEAD LENGTHS
RESISTIVE / INDUCTIVE LOAD

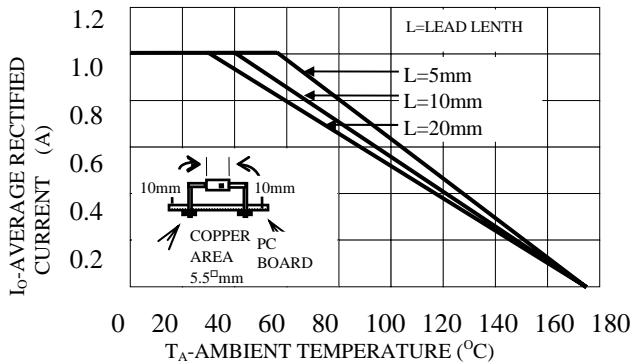


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

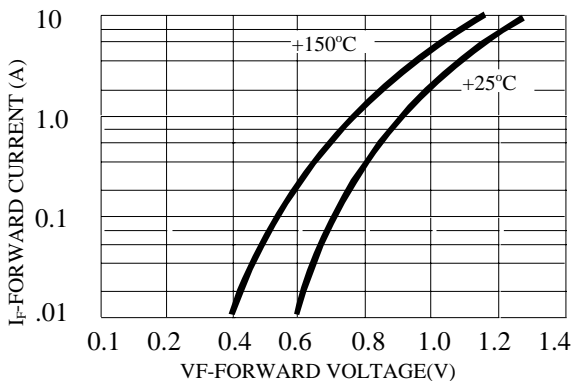


Fig. 5-MAXIMUM FORWARD SURGE
VS NUMBER OF CYCLES

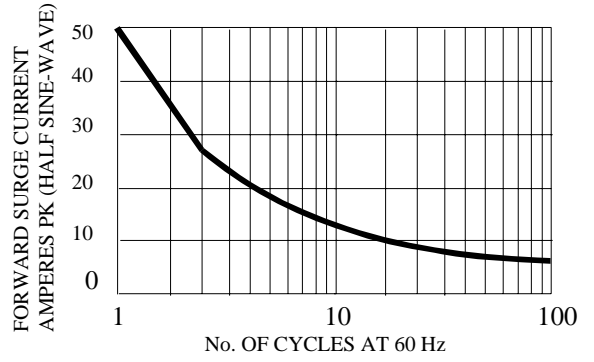


Fig. 6-TYPICAL REVERSE
CHARACTERISTIC

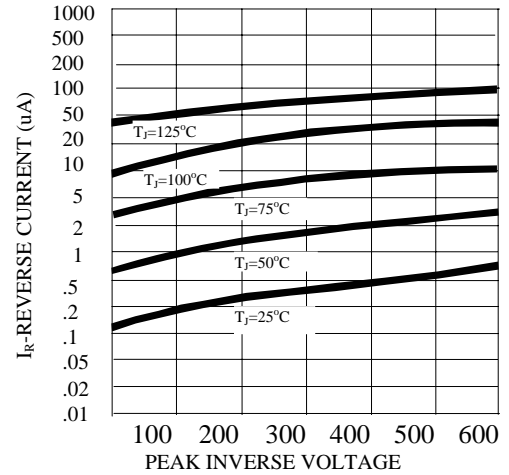


Fig. 7-TYPICAL JUNCTION CAPACITANCE

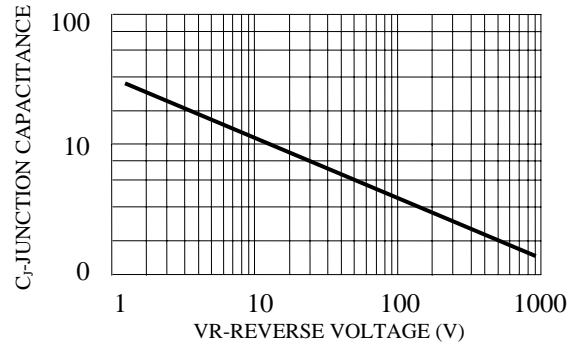


Fig. 8-FORWARD PULSE CURRENT
VS PULSE DURATION

