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1A GENERAL PURPOSE PLASTIC RECTIFIER

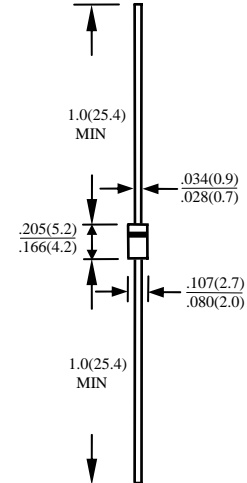
1N4007 (1300V)

FEATURES

- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- DIFFUSED JUNCTION
- LOW COST
- HIGH SURGE CURRENT CAPABILITY

MECHANICAL DATA

- CASE: TRANSFER MOLDED, DO41, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.34 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	1N4007	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	1300	V
MAXIMUM RMS VOLTAGE	V_{RMS}	910	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	1300	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375" (9.5mm) LEAD LENGTH AT $T_A=55^\circ\text{C}$	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
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 175	$^\circ\text{C}$
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (AT $T_A=25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	1N4007	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.1	V
MAXIMUM REVERSE CURRENT AT 25 $^\circ\text{C}$	I_R	5	μA

NOTE:

1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

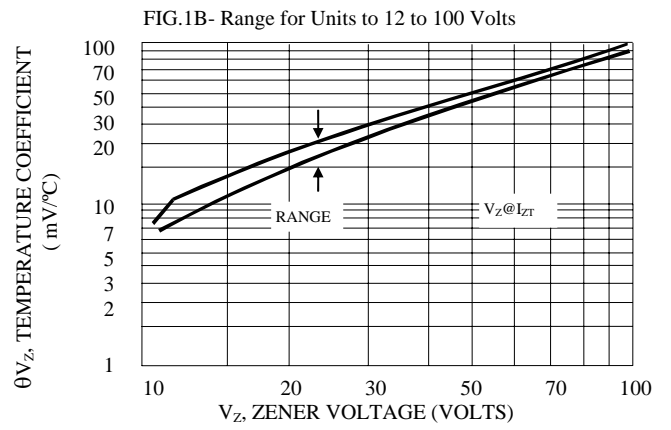
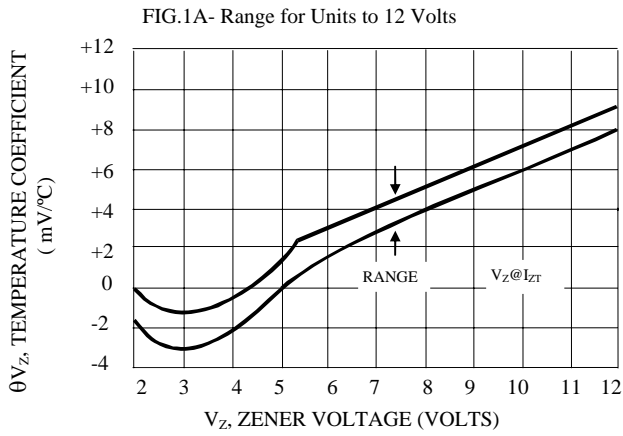


Figure 2. Temperature Coefficients (-55°C to +150°C temperature change; 90% of the units are in the ranges indicated.)

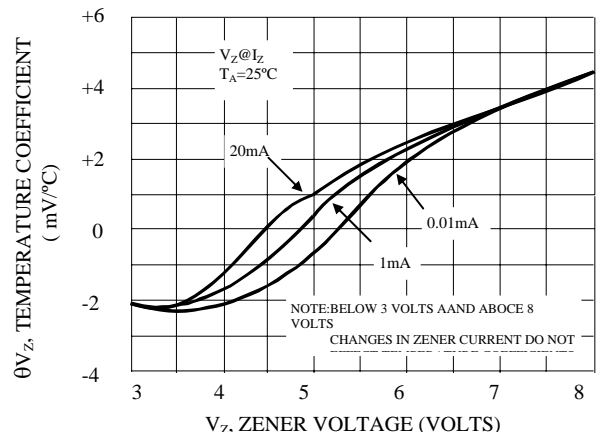
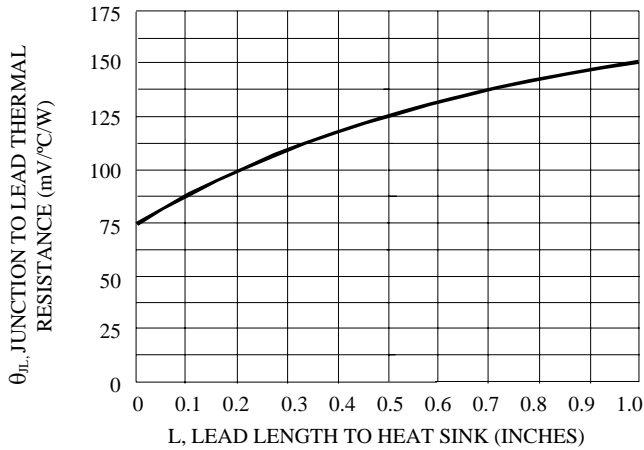


Figure 3. Typical Thermal Resistance versus Lead Length

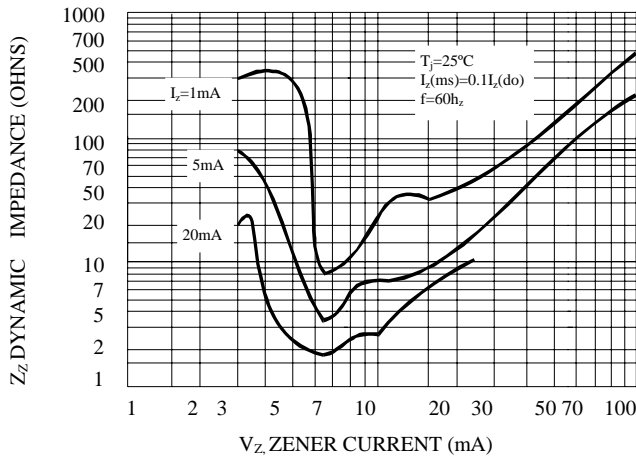


Figure 4. Effect of Zener Current

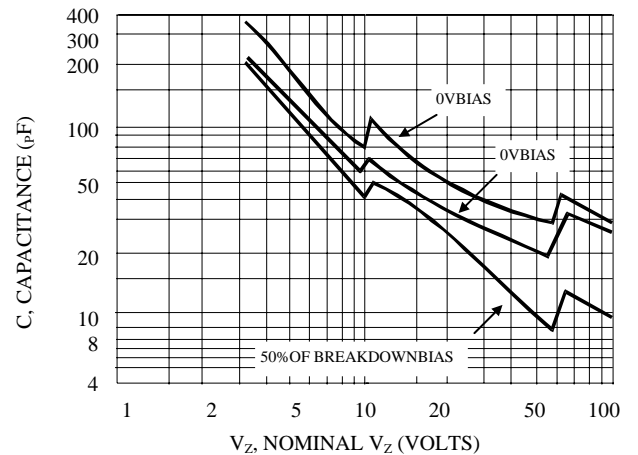


Figure 7 - Power Temperature Derating Curve

