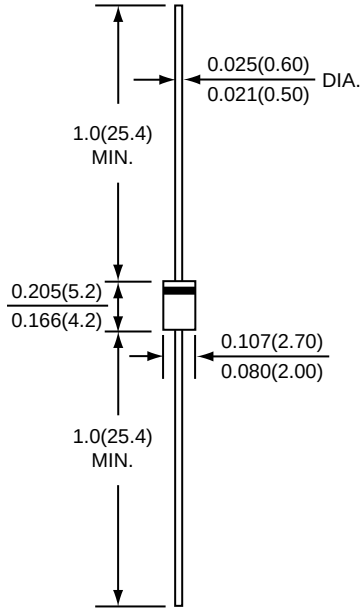
1N4001E THRU 1N4007E

SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts *Forward Current - 1.0 Ampere*

A-405



*Dimensions in inches and (millimeters)

FEATURES

* High relliability
* Low reverse leakage
* Low forward voltage drop
* High current capability

MECHANICAL DATA

Case : JEDEC A-405 molded plastic
Epoxy : UL 94V-O rate flame retardant
Lead : MIL-STD-202F method 208C guaranteed
Mounting Position : Any
Weight : 0.20 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***1N4001E***	***1N4002E***	***1N4003E***	***1N4004E***	***1N4005E***	***1N4006E***	***1N4007E***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T_A=55°C	$I_{(AV)}$	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	1.1							Volts
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at T_L=75°C	$I_{R(AV)}$	30							uA
Maximum DC reverse current at rated DC blocking voltage T_A=25°C T_A=100°C	I_R	5.0 50							uA
Typical junction capacitance (NOTE)	C_J	15							pF
Typical thermal resistance	$R_{\theta JA}$	50							°C / W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175							°C

NOTES : Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES 1N4001E THRU 1N4007E

FIG.1 - FORWARD CURRENT DERATING CURVE

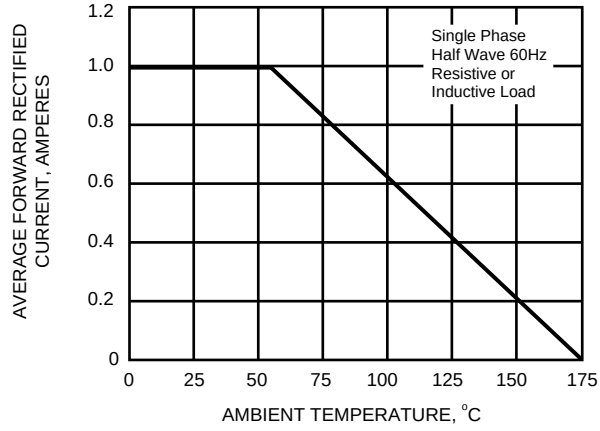


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

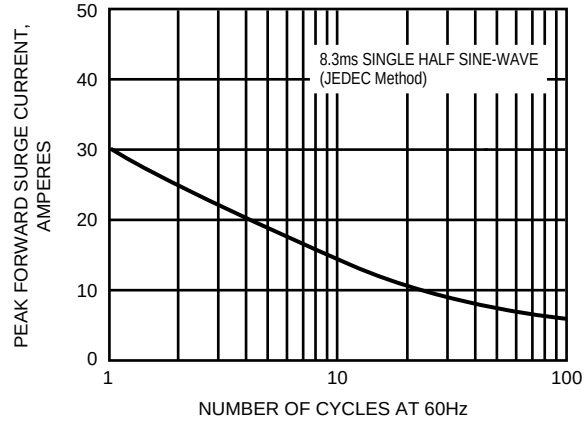


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

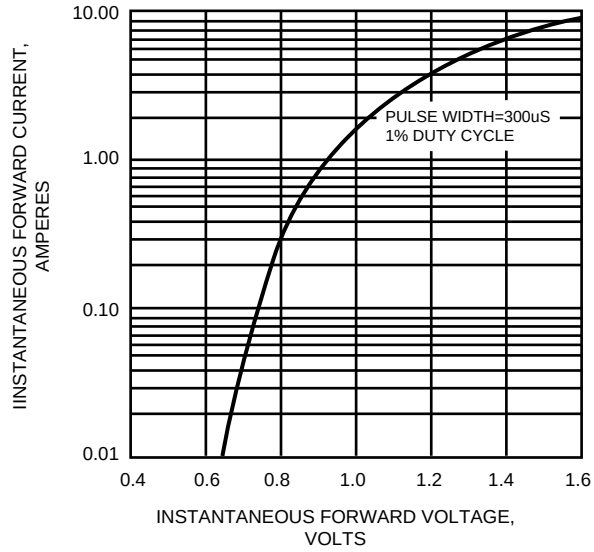


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

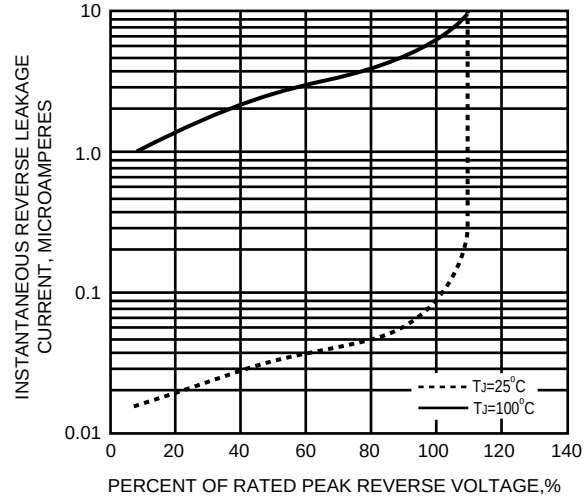


FIG.5 - TYPICAL JUNCTION CAPACITANCE