

# 1N4007-10E

## GENERAL PURPOSE PLASTIC RECTIFIER

VOLTAGE: 1000V

CURRENT: 1.0A



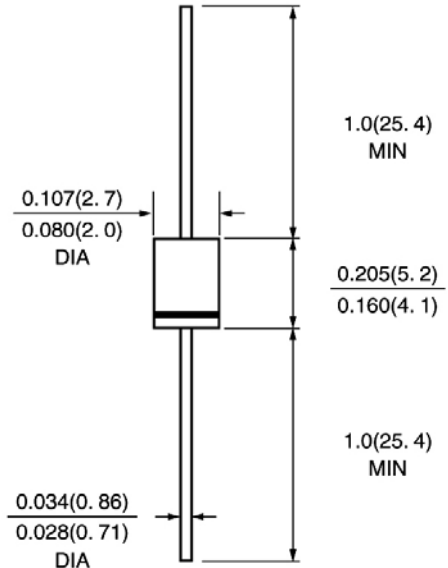
### FEATURE

Molded case feature for auto insertion  
High current capability  
Low leakage current  
High surge capability  
High temperature soldering guaranteed  
250°C/10sec/0.375"lead length at 5 lbs tension

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any

### DO-41\DO-204AL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated)

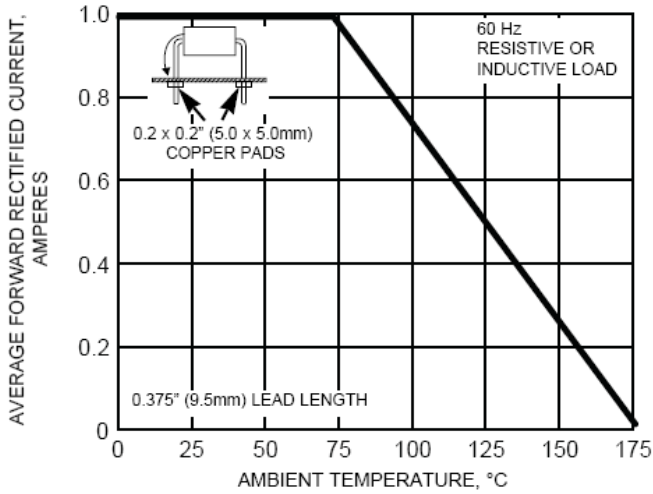
	Symbol	1N4007-10E	units
* Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	1000	V
* Maximum RMS Voltage	V <sub>rms</sub>	700	V
* Maximum DC blocking Voltage	V <sub>dc</sub>	1000	V
* Maximum Average Forward Rectified Current 3/8"lead length at T <sub>a</sub> =75°C	I <sub>f(av)</sub>	1.0	A
* Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I <sub>fsm</sub>	30.0	A
* Maximum Instantaneous Forward Voltage at rated forward current	V <sub>f</sub>	1.1	V
Maximum full load reverse current full cycle at T <sub>L</sub> =75°C	I <sub>r(av)</sub>	30.0	μA
Maximum DC Reverse Current at rated DC blocking voltage	I <sub>r</sub>	5.0 50.0	μA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	15.0	pF
Typical Thermal Resistance (Note 2)	R <sub>th(ja)</sub>	50.0	°C /W
Storage and Operation Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-50 to +150	°C

Note:

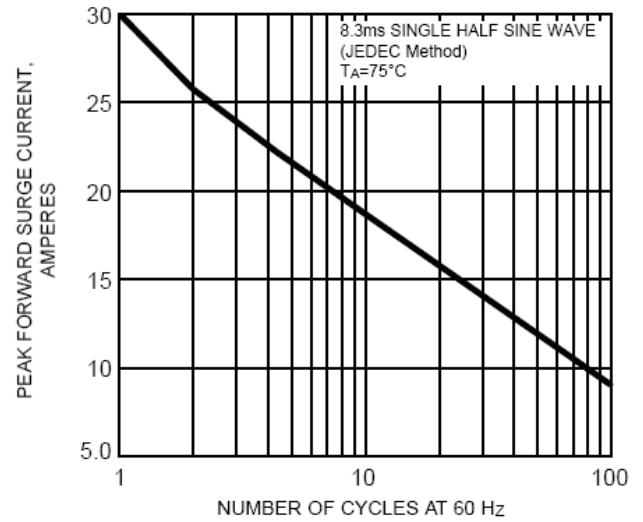
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
  2. Thermal Resistance from Junction to Ambient at 0.375"lead length, P.C. Board Mounted
- \* JEDEC Registered value

# RATINGS AND CHARACTERISTIC CURVES 1N4007-10E

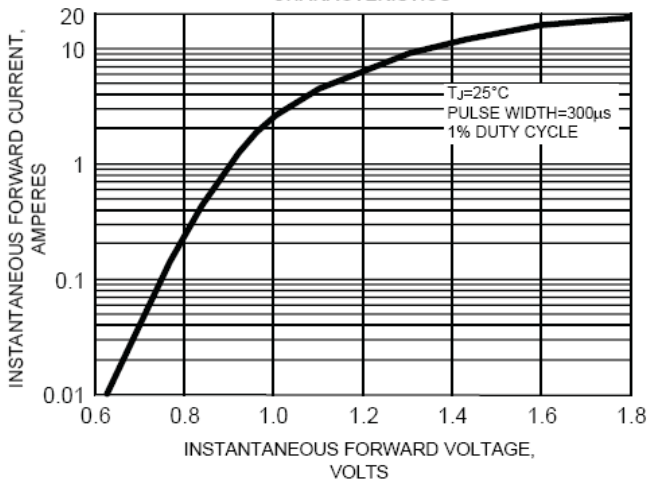
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



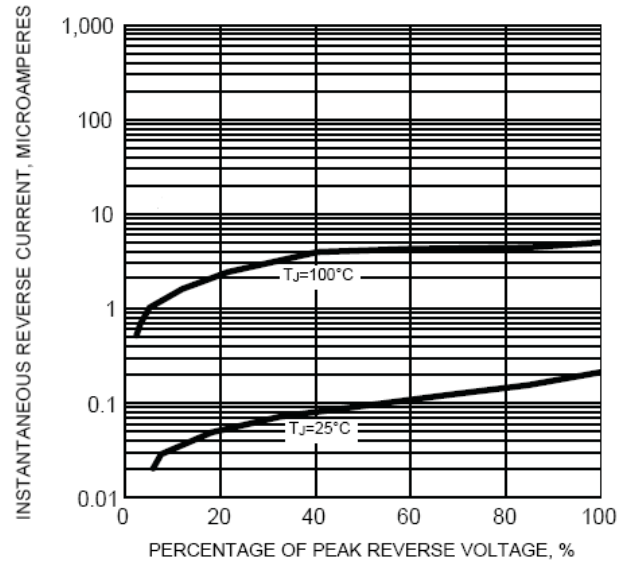
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



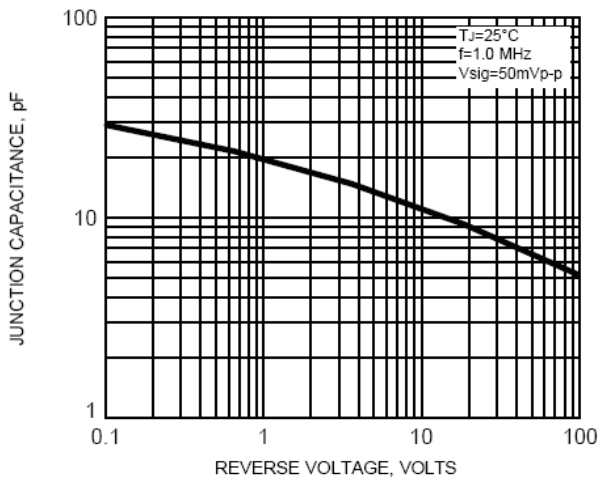
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

