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Plastic Silicon Rectifier

1A Series 1N4001-1N4007

Features

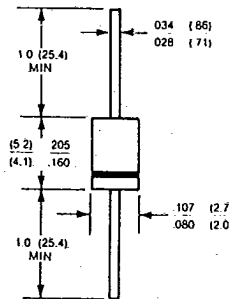
- Low forward voltage
- High current capability
- Low leakage current
- High surge capability
- Low cost

Mechanical Data

- Case: Molded plastic UL 94V-0 recognized Flame Retardant Epoxy
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode

Voltage Range
50 to 1000 PRV

Current
1.0A



Dimensions in Inches and (millimeters)

Maximum ratings and electrical characteristics Single-phase, half-wave, 60 Hz, resistive or inductive load

	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
* Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
* Maximum RMS Voltage	35	70	140	280	420	560	700	V
* Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
* Maximum Average Forward Rectified Current 3/8 Lead Length 75°C				1.0				A
* Maximum Overload Surge Current at Rated Current & Temperature (Fig. 5) 1 cycle				30				A
* Maximum Forward Voltage at 1.0A DC and 25°C				1.1				V
* Maximum Full Load Reverse Current, Full Cycle Average at 75°C Ambient				30				μA
Maximum DC Reverse Current at 25°C at Rated DC Blocking Voltage at 75°C				5.0	50.0			μA μA
Typical Reverse Recovery Time (Note 1)				30				μS
Typical Junction Capacitance (Note 2)				30				pF
Typical Thermal Resistance θ _{ja} (Note 3)				50				°C/W
Operating and Storage Temperature Range								-65 to +175 °C

NOTES:

- 1—Measured on Tektronix Type "S" recovery plug-in, Tektronix 545 Scope or equivalent, $I_{FM} = 20mA$, $I_{RM} = 1ma$.
 - 2—As measured on a Boonton Capacitance Bridge, Model 75A-S8 at 1.0 MHz and applied reverse voltage of 4.0 V_{DC} .
 - 3—Thermal Resistance Junction to Ambient.
- *JEDEC Registered Value.

Rating and Characteristic Curve IN4001 thru IN4007

Fig. 1—TYPICAL FORWARD CHARACTERISTICS

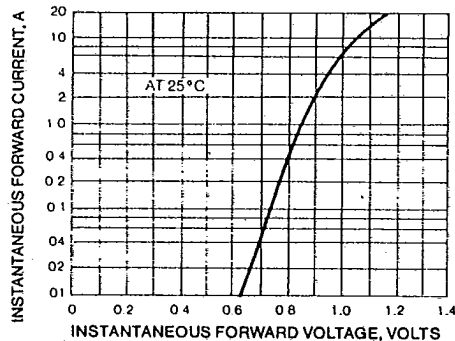


Fig. 2—JUNCTION CAPACITANCE (See Application Note 2)

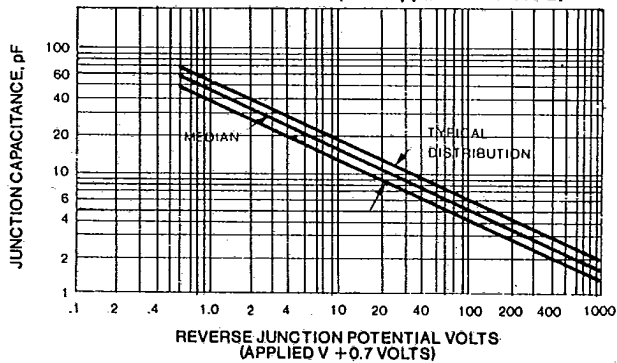


Fig. 3—MAXIMUM OVERLOAD SURGE—CURRENT

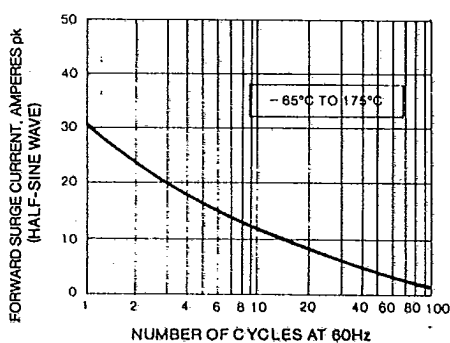
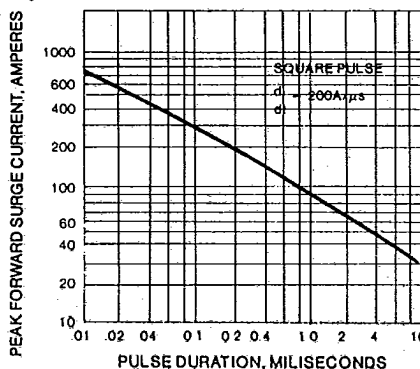


Fig. 4—PEAK FORWARD SURGE CURRENT



Available Tape and Reel