

1.0 A Plastic Silicon Rectifier
Rectifier Reverse Voltage 50 to 1000V



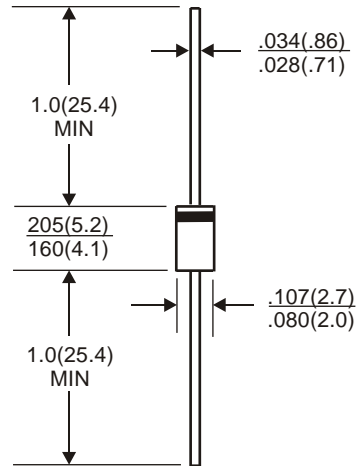
Features

- Diffused junction
- High current capability and low Forward Voltage Drop
- Surge overload rating to 50A peak
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

Mechanical Data

Case: Molded plastic
 Terminals: Solder plated solderable per MIL-STD-202, Method 208
 Polarity: Cathode band
 Mounting Position: Any
 Weight: 0.3grams (approx)

DO-41



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
 For Capacitive load derate current by 20%.

Parameter	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=75°C	IF(AV)	1.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	30.0							A
Typical thermal resistance per element	ReJA	50							°C/W
Typical junction capacitance per element	Cj	30							pF
Operating junction and storage temperature range	TJ, TSTG	-65 to + 175							°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
 For Capacitive load derate by 20 %.

Parameter	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Maximum instantaneous forward voltage drop per leg at 1.0A	VF	1.0							V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR	5.0 50.0							µA

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

1N4001 thru 1N4007

Fig. 1 Derating Curve for Output Rectified Current

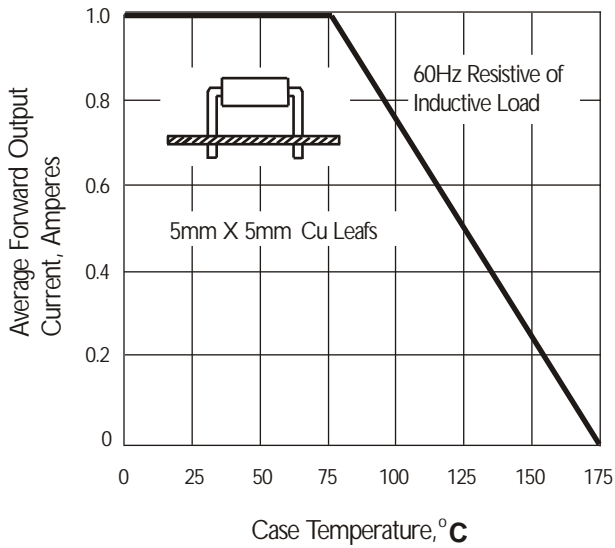


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

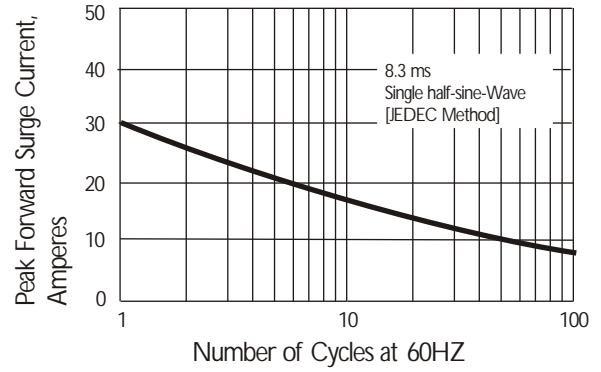


Fig. 4 Typical Revers Characteristics

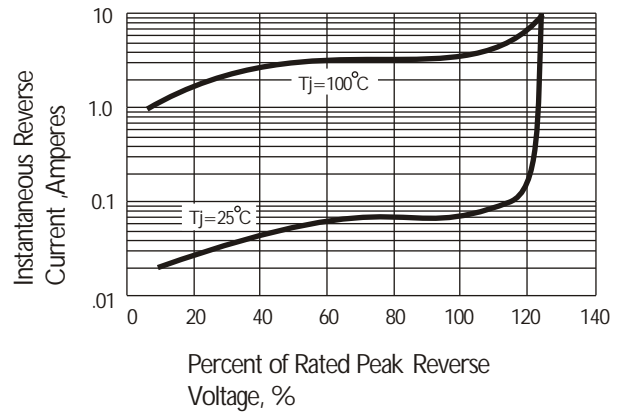


Fig. 3 Typical Instantaneous Forward Characteristics

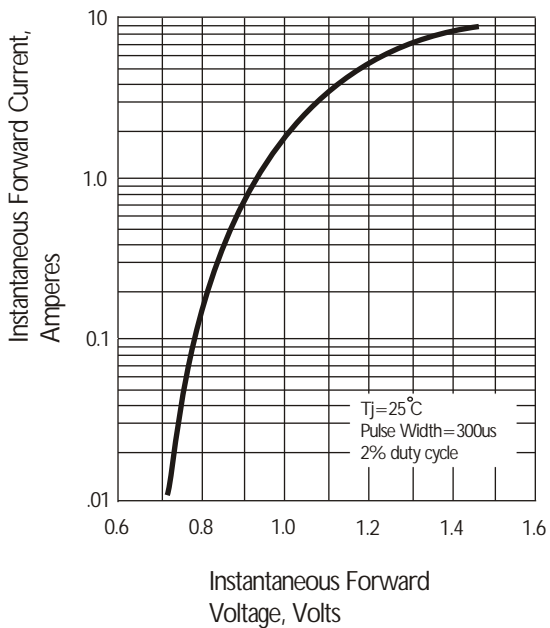


Fig. 5 Typical Junction Capacitance

