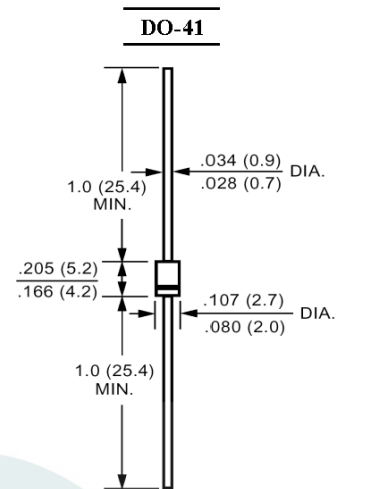


**General Purpose Plastic Silicon Rectifier**  
**Reverse Voltage – 50 to 1000 V**  
**Forward Current – 1 A**
**Features**

- Low forward voltage drop
- High current capability
- High surge current capability

**Mechanical Data**

- Case: Molded plastic, DO-41
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202 method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

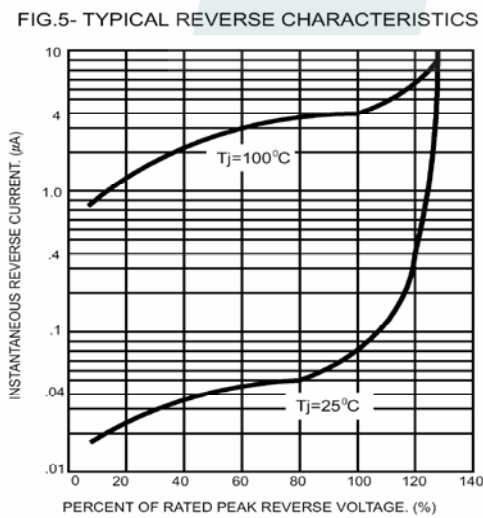
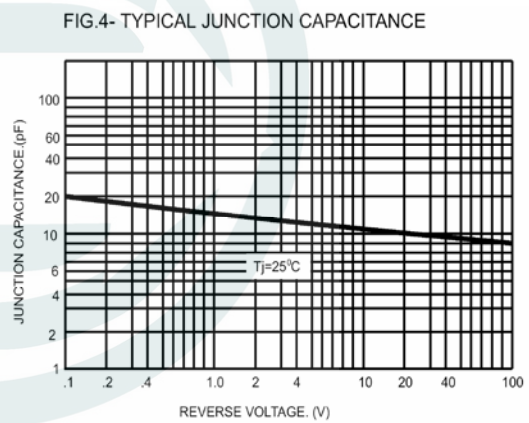
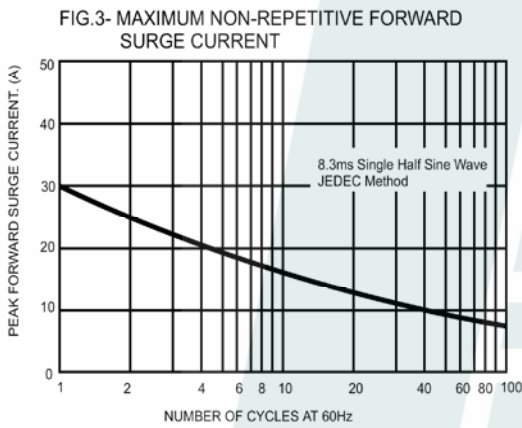
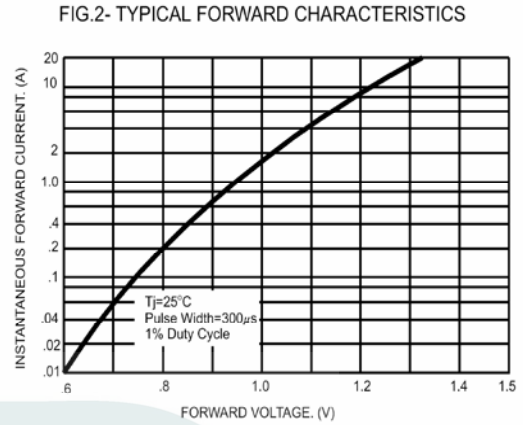
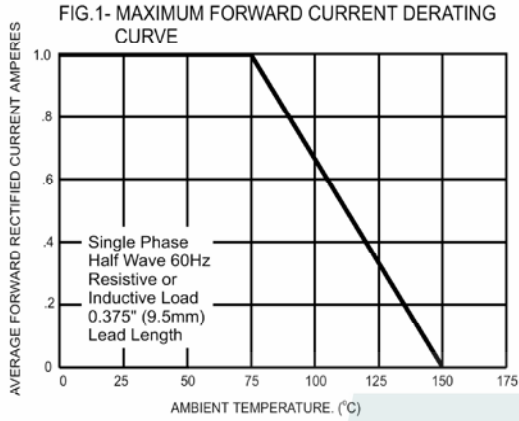

**Dimensions in inches and (millimeters)**
**Absolute Maximum Ratings and Characteristics**

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%.

Parameter	Symbols	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 75\text{ }^\circ\text{C}$	$I_{(AV)}$	1							A
Peak Forward Surge Current, 8.3 ms Single Half-sine-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1 A DC and 25 °C	$V_F$	1.1							V
Maximum Full Load Reverse Current, Full Cycle Average at 75 °C Ambient	$I_{R(AV)}$	30							$\mu\text{A}$
Maximum Reverse Current $T_A = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100\text{ }^\circ\text{C}$	$I_R$	5 500							$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	15							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 55 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150							$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V.

<sup>2)</sup> Thermal resistance junction to ambient 0.375" (9.5 mm) lead length P.C.B mounted.



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