



GENERAL PURPOSE SILICON RECTIFIER 1N4001~1N4007

General Purpose Silicon Rectifier

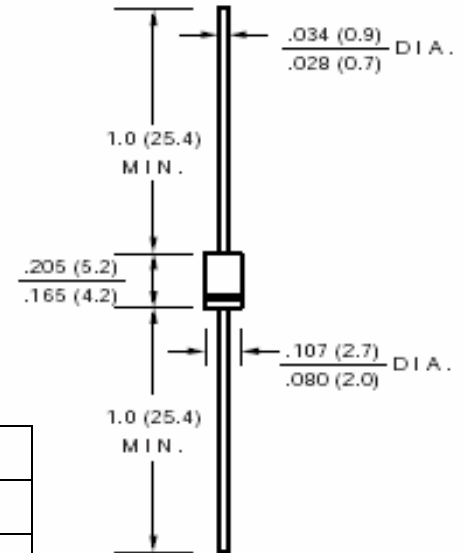
Dimensions in inch (mm)

Features

- Low forward voltage drop
- Low leakage current
- High forward surge current capability
- High temperature soldering guaranteed 260°C/10 seconds
.0375" (9.5mm) lead length
- RoHS and REACH Compliant

Mechanical Data

Case:	DO-41, transfer molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Plated axial leads, solderable per MIL-STD-202E, Method 208C
Polarity:	Cathode indicated by color band
Mounting position:	Any
Weight:	0.012 Ounce, 0.33 gram



**DO204AL
(DO-41)**

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit	Conditions
V_{RRM}	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Max RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
$I_{F(AV)}$	Max Average Forward Rectified Current	1.0							A	.0375" (9.5mm) lead length at $T_A=75^{\circ}C$
I_{FSM}	Peak Forward Surge Current	30							A	8.3ms single half sine-wave (JEDEC)
$I_{R(AV)}$	Max Full Load Reverse Current	30							μA	Full cycle average .0375" (9.5mm) lead length
T_J, T_{STG}	Operating and Storage Temperature Range	-65 to +175							$^{\circ}C$	



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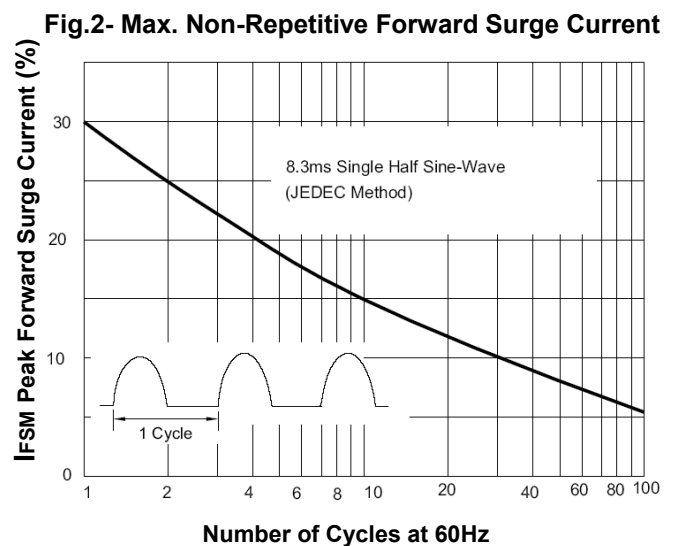
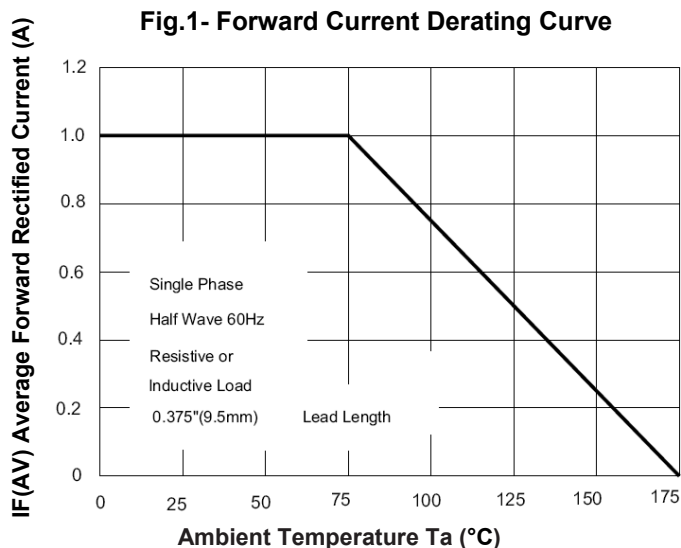
1N4001~1N4007

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit	Conditions
V_F	Max Instantaneous Forward Voltage	1.1							V	$I_{F(AV)}=1.0A$
I_R	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	$T_A=25^{\circ}C$
		50								$T_A=100^{\circ}C$
C_J	Typical Junction Capacitance	15							pF	At 1MHz, reversed voltage of 4V
$R_{\theta-JA}$	Typical Thermal Resistance	50							$^{\circ}C/W$	Note 2

- Note:**
1. Single phase, half wave, 60Hz, resistive or inductive load. Derate current by 20% for capacitive load
 2. Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted with copper pad area of 0.2" x 0.2" (5x5mm).

Typical Characteristics Curves



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Fig.3- Typical Instantaneous Forward Characteristics

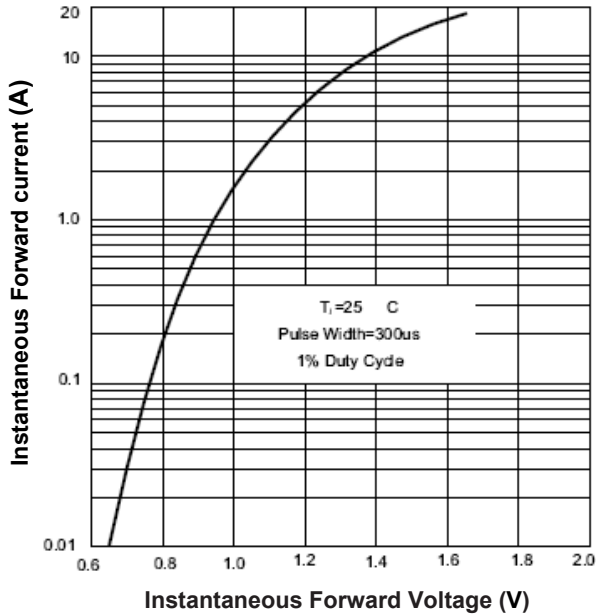


Fig.5- Typical Reverse Characteristics

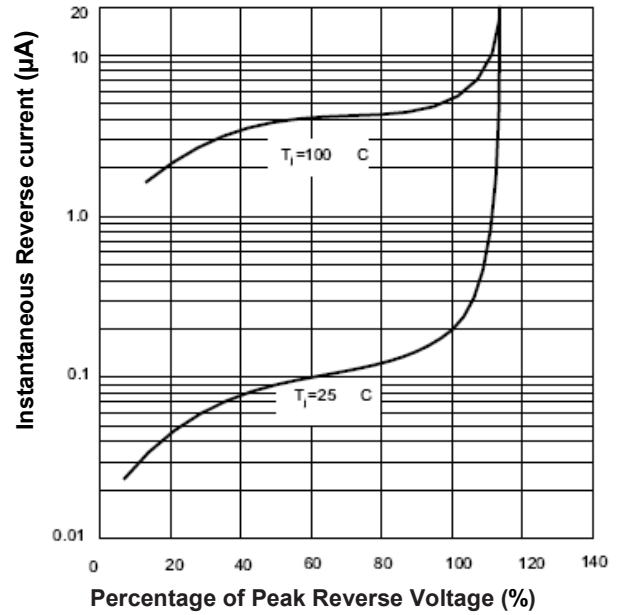


Fig.6- Typical Junction Capacitance

