

# 1N4001 THRU 1N4007

## General Purpose Rectifier

RoHS  
COMPLIANT

### Features

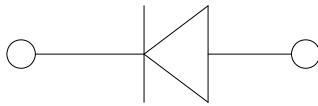
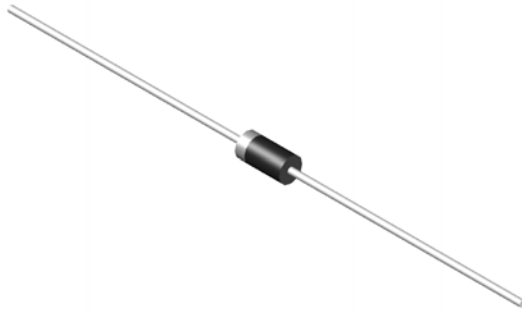
- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

### Mechanical Data

- **Package:** DO-204AL(DO-41)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:**Color band denotes cathode end



### ■Maximum Ratings (Ta=25°C Unless otherwise specified )

PARAMETER	SYMBOL	UNIT	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007
Device marking code									
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta =85°C	IF(AV)	A	1.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	30						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			60						
Current squared time @1ms≤t8.3≤ms Tj=25°C, Rating of per diode	I²t	A²s	3.735						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	6						
Storage Temperature	Tstg	°C	-55 ~ +150						
Junction Temperature	Tj	°C	-55 ~ +150						

### ■Electrical Characteristics ( Ta=25°C Unless otherwise specified )

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=1.0A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	µA	Tj=25°C	2.5						
			Tj=125°C	50						

**1N4001 THRU 1N4007**

■ **Thermal Characteristics** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007
Typical Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	60						

■ **Ordering Information (Example)**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4001~1N4007	D1	Approximate 0.27	Approximate 5000	5000	50000	Tape
1N4001~1N4007	C1	Approximate 0.27	Approximate 1000	1000	50000	Bulk

■ **Characteristics (Typical)**

FIG.1:  $I_o$ - $T_a$  Curve

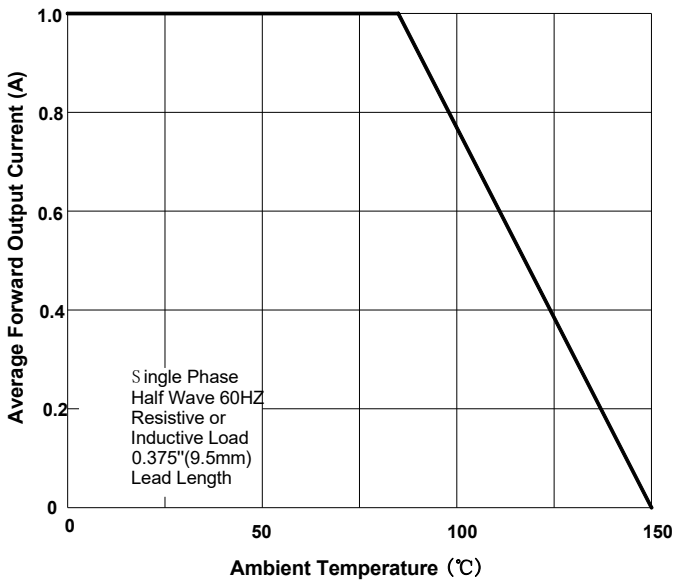


FIG.2: Forward Surge Current Capability

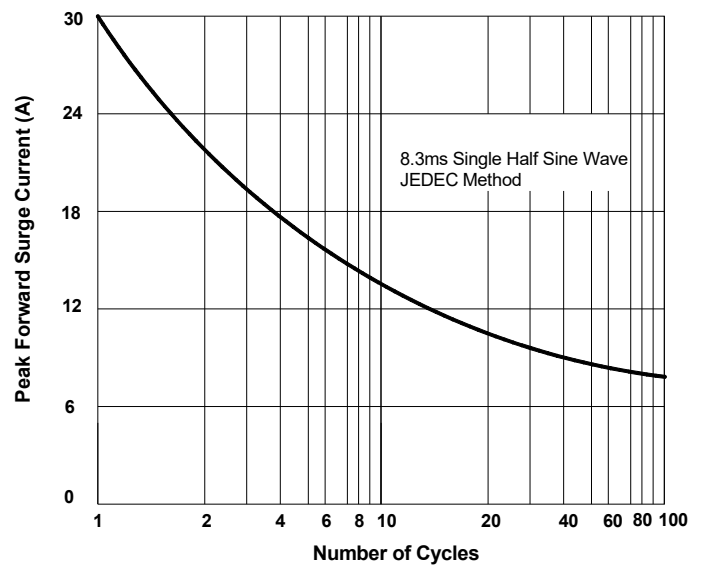


FIG.3: Forward Voltage

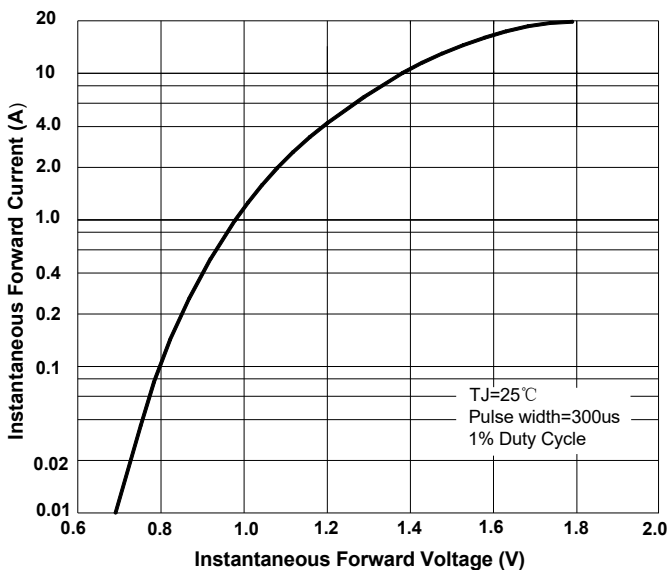
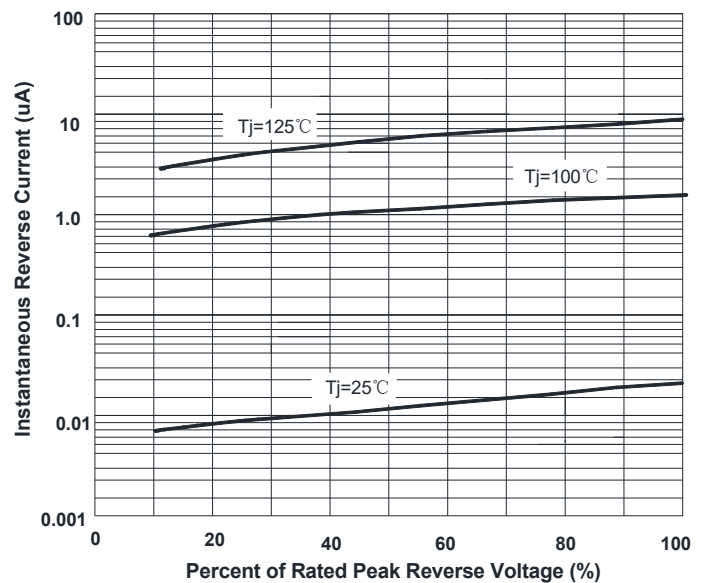
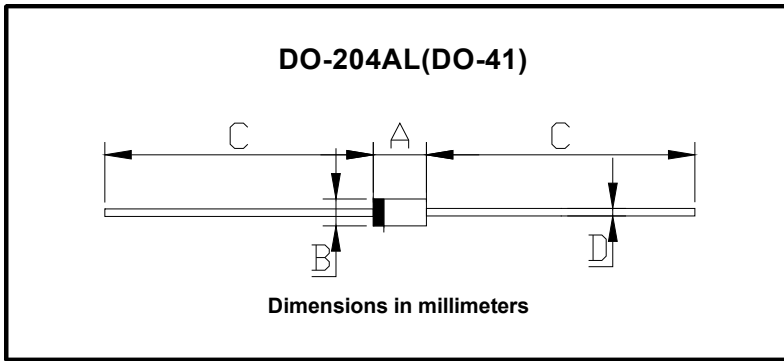


FIG.4: Typical Reverse Characteristics



**1N4001 THRU 1N4007**

■ Outline Dimensions



DO-204AL(DO-41)		
Dim	Min	Max
A	4.22	5.21
B	2.03	2.72
C	25.4	/
D	0.69	0.86

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