

## General Purpose Plastic Rectifier (Discontinued)

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension



DO-204AL

### Mechanical Data

<b>Case:</b>	JEDEC DO-204AL molded plastic body
<b>Terminals:</b>	Plated axial leads, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Mounting Position:</b>	Any
<b>Weight:</b>	0.012 ounce, 0.3 gram

### Maximum Ratings and Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless noted otherwise)

Symbol	Description	1N4001	Unit	Conditions
<b>V<sub>RRM</sub></b>	*Maximum Repetitive Peak Reverse Voltage	50	V	
<b>V<sub>RMS</sub></b>	*Maximum RMS Voltage	35	V	
<b>V<sub>DC</sub></b>	*Maximum DC Blocking Voltage	50	V	
<b>I<sub>F(AV)</sub></b>	*Maximum Average Forward Rectified Current	1.0	A	0.375" (9.5mm) lead length $T_A=75^\circ\text{C}$
<b>I<sub>FSM</sub></b>	*Peak Forward Surge Current	30	A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	1.1	V	$I_F=1.0\text{A}$
<b>I<sub>R(AV)</sub></b>	*Maximum Full Load Reverse Current,	30	$\mu\text{A}$	Full Cycle Average 0.375"(9.5mm) lead length at $T_L=75^\circ\text{C}$

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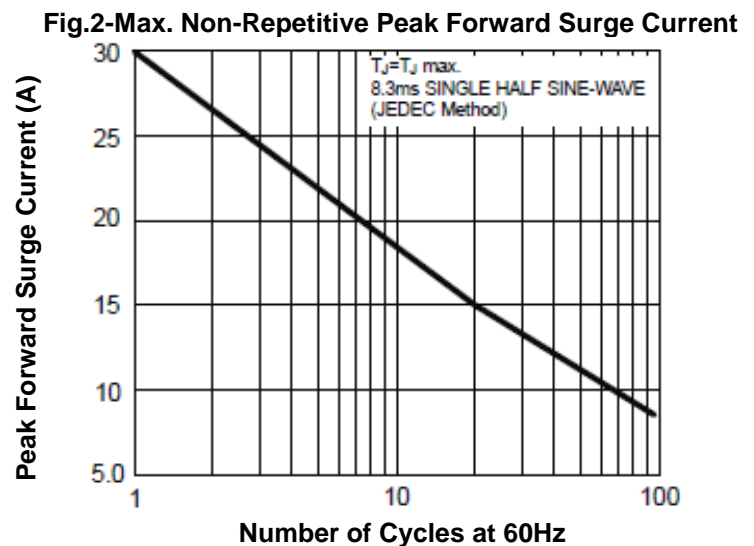
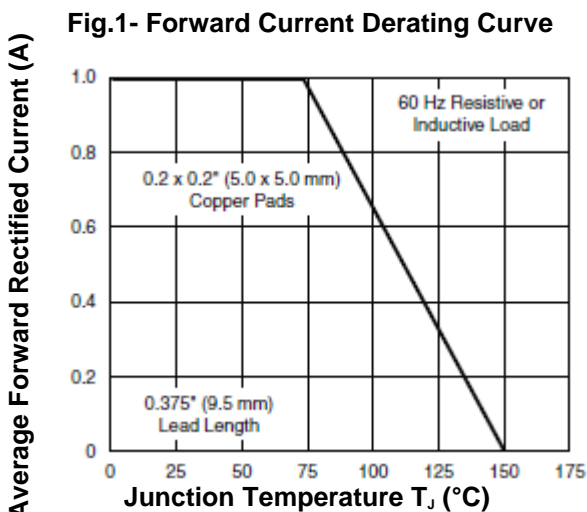
Symbol	Description	1N4001	Unit	Conditions
<b>IR</b>	*Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0	$\mu\text{A}$	$T_A=25^\circ\text{C}$
		50		$T_A=100^\circ\text{C}$
<b>Trr</b>	Typical Reverse Recovery Time	30	$\mu\text{s}$	Note 1
<b>CJ</b>	Typical Junction Capacitance	15	pF	Note 2
<b>RthJA</b>	Typical Thermal Resistance	50	$^\circ\text{C} / \text{W}$	Note 3
<b>RthJL</b>		25		
<b>TA</b>	Maximum DC Blocking Voltage Temperature	+150	$^\circ\text{C}$	
<b>TJ, TSTG</b>	Operating Junction and Storage Temperature Range	-50 to +150	$^\circ\text{C}$	

## Notes:

- 1: Measured on Tektronix Type "S" recovery plug-in. Tektronix 545 Scope or equivalent,  $I_{FM}=20\text{mA}$ ,  $I_{RM}=1\text{mA}$ .
- 2: Measured at 1.0MHz and applied reverse voltage of 4.0V
- 3: Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted.

\*JEDEC Registered Values

### Typical Characteristics Curves *( $T_A=25^\circ\text{C}$ unless noted otherwise)*



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Fig.3- Typical Instantaneous Forward Characteristics

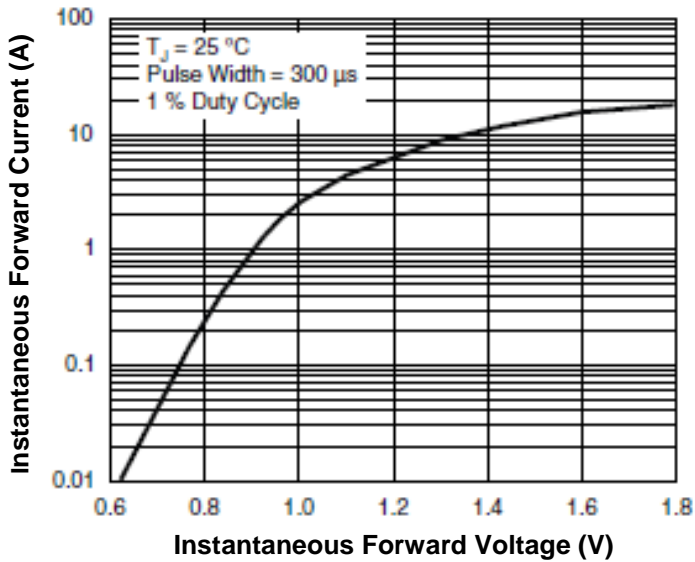


Fig.4-Typical Reverse Characteristics

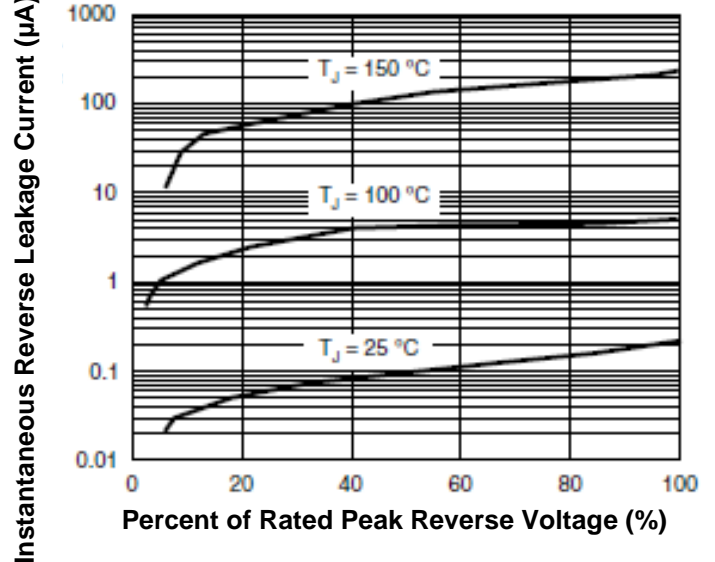


Fig.5- Typical Junction Capacitance

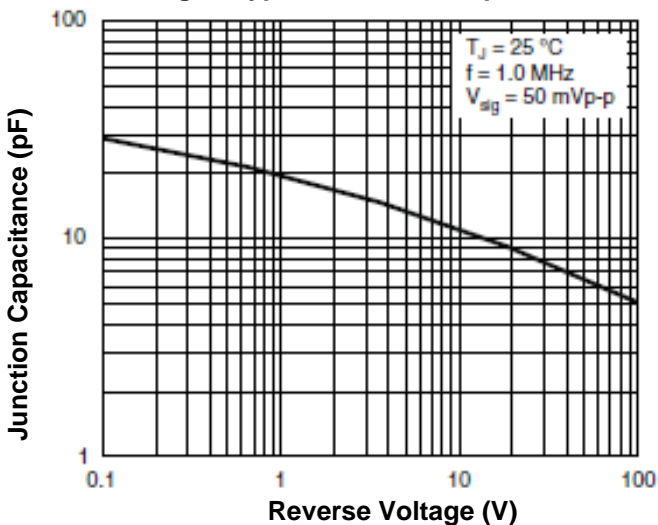
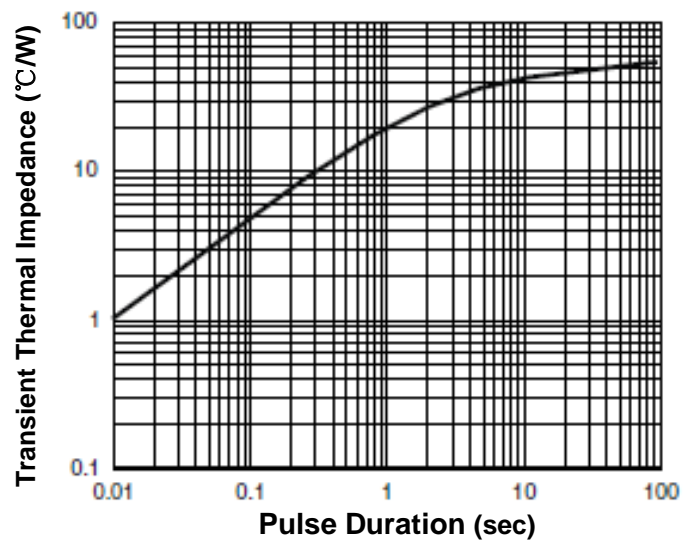
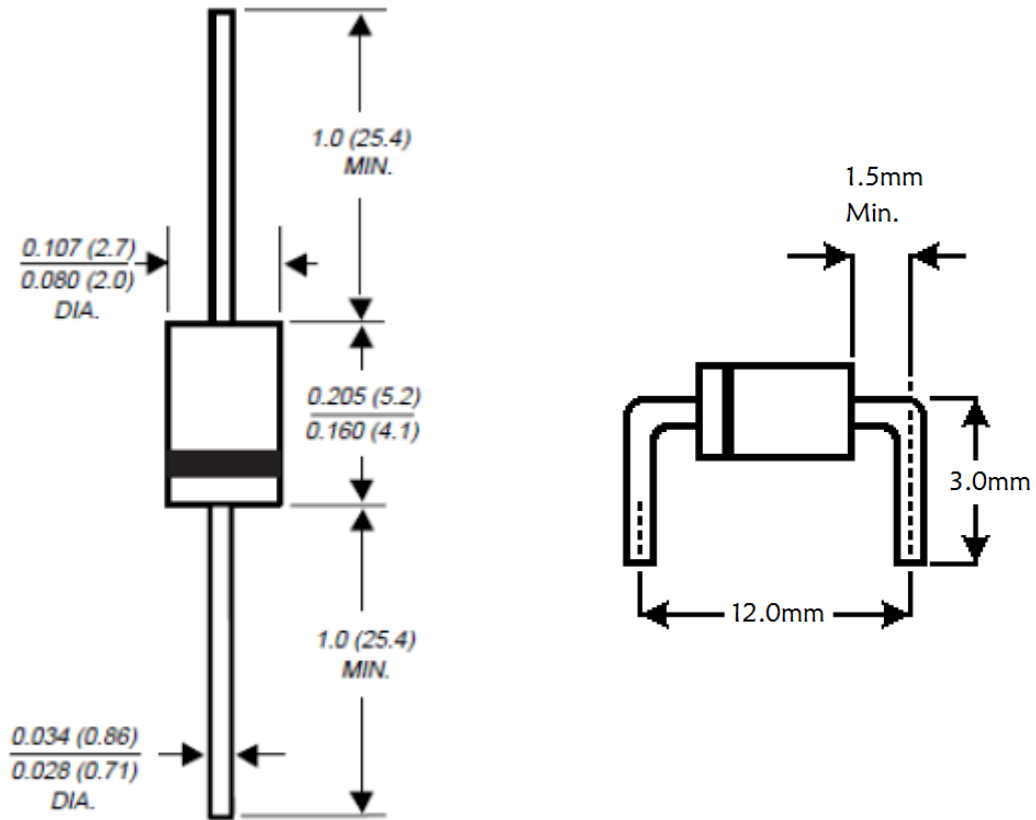


Fig.6-Typical Transient Impedance



Dimensions in inch (mm)



DO-204AL

Order Information

Part # to order	Manufacturer	Outline	Packing	RoHS Status
1N4001(K-V)-GSI-2	General Semiconductor	DO-204AL	Bulk, M Performed	NO

## How to contact us

**USA HEADQUARTERS**

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800)-TAITRON (800)-824-8766 (661)-257-6060

Fax: (800)-TAITFAX (800)-824-8329 (661)-257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

**TAITRON COMPONENTS INCORPORATED TAIWAN BRANCH**

6F., NO.190, SEC. 2, ZHONGXING RD., XINDIAN DIST., NEW TAIPEI CITY 23146, TAIWAN R.O.C.

Tel: 886-2-2913-6238

Fax: 886-2-2913-6239

**TAITRON COMPONENT TECHNOLOG SHANGHAI CORPORATION**

SUITE 1503, METROBANK PLAZA, 1160 WEST YAN'AN ROAD, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-2302-5027