

## STANDARD RECOVERY RECTIFIERS

1N4001 - 1N4007



**DO-41 (Plastic)  
Axial Lead Plastic  
Package**

These Axial Lead Mounted Rectifiers are used for General-Purpose Low-Power Applications

### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

DESCRIPTION	SYMBOL	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	UNIT
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
Non-Repetitive Peak Reverse Voltage (halfwave, single phase, 60Hz)	$V_{RSM}$	60	120	240	480	720	1000	1200	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Current 0.375 " lead length @ $T_a=75^\circ\text{C}$	$I_O$	1.0							A
Non-Repetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Thermal Resistance from Junction to Ambient in free air	$R_{th(j-a)}$	50							$^\circ\text{C/W}$
Storage Temperature Range	$T_{stg}$	- 55 to +150							$^\circ\text{C}$
Operating Junction Temperature	$T_j$	-55 to +125							$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise )

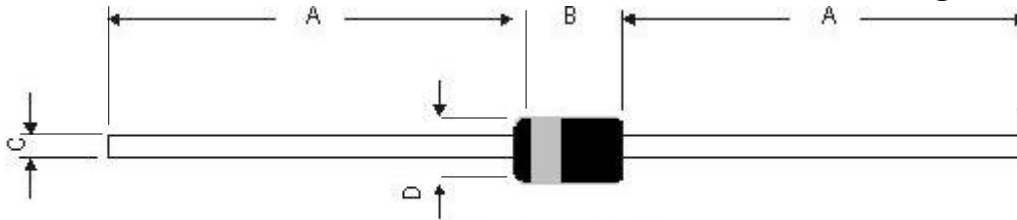
DESCRIPTION	SYMBOL	TEST CONDITION	MAX	UNIT
Maximum Instantaneous Forward Voltage Drop	$V_F$	$I_F = 1.0\text{A}$	1.1	V
Maximum Full-Cycle Average Forward Voltage Drop	$V_{F(AV)}$	$I_O=1.0\text{A}, T_a=75^\circ\text{C}$	0.8	V
Maximum Reverse Current	$I_R$	@ rated $V_R$ $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	5 500	$\mu\text{A}$ $\mu\text{A}$
Maximum Full-Cycle Average Reverse Current	$I_{R(AV)}$	$I_O=1.0\text{A}, T_a=75^\circ\text{C}$	30	$\mu\text{A}$
Junction Capacitance	$C_j$	$V_R = 4\text{V}, f = 1\text{MHz}$	typ 15	pF

1N4001\_1N4007Rev030103E

1N4001 - 1N4007

**DO-41 (Plastic)  
Axial Lead Plastic  
Package**

**DO-41 Axial Lead Plastic Package**

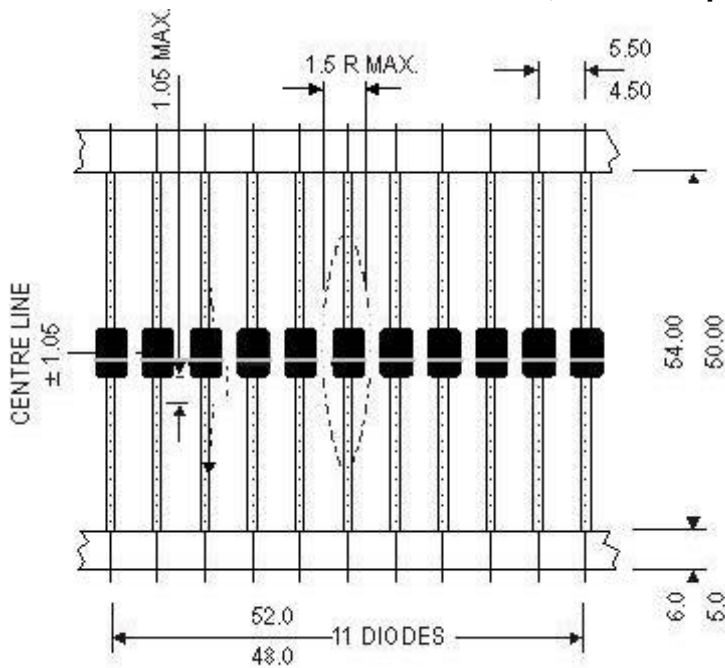


**NOTE:** Cathode is marked by Band.

DIM	MIN	MAX
A	27.90	—
B	4.05	5.20
C	0.75	0.87
D	2.30	2.70

All dimensions are in mm.

**DO-41, 52mm Taping Specification**



All dimensions are in mm.

**52 mm Taping Specification**

1. T & A indicates Axial Tape and Ammo Packing (52 mm Tape Spacing).
2. 300 mm (min) leader tape on every tape.
3. No. of empty places allowed 0.25% without consecutive empty places.
4. Ends of leads shall preferably not protrude beyond the tapes.
5. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.

**Packing in Ammo Pack: 5000 pcs./Ammo Pack**

**DO-41 (Plastic)  
Axial Lead Plastic  
Package****Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of  
**Continental Device India Limited**

C-120 Naraina Industrial Area, New Delhi 110 028, India.  
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119  
email@cdil.com www.cdilsemi.com