Continental Device India Limited

An IS/ISO 9002 and IECQ Certified Manufacturer

STANDARD RECOVERY RECTIFIERS

1N4001 - 1N4007

DO-41P
Axial Lead Plastic Package

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

ABSOLUTE MAXIMUM RATINGS (Ta = 25ºC)
ELECTRICAL CHARACTERISTICS

DESCRIPTION	SYMBOL	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blockng Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
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 at Half Wave 0.375" Lead Length at Ta = 75ºC	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							ºC/W
StorageTemperature Range	T_{stg}	- 55 to +150							ºC
Operating Junction Temperature	T_j	- 55 to +125							ºC

ELECTRICAL CHARACTERISTICS

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

1N4001_1N4007Rev04_281212E

FIG. 1- FORWARD CURRENT DERATING CURVE

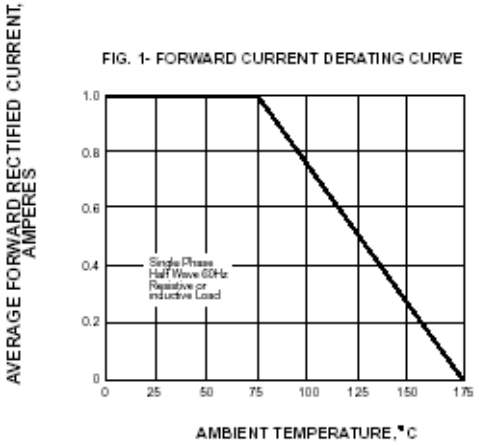


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

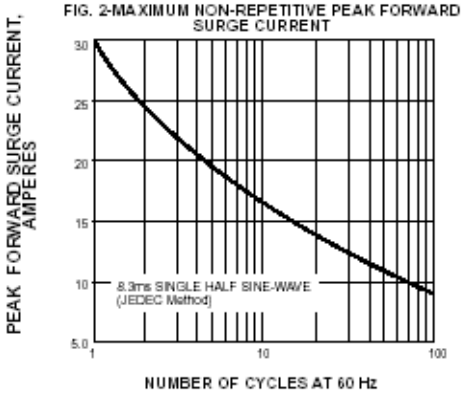


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

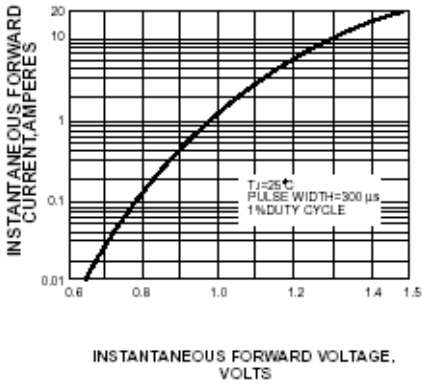


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

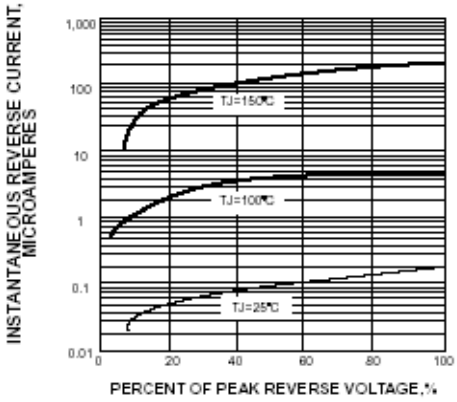


FIG. 5-TYPICAL JUNCTION CAPACITANCE

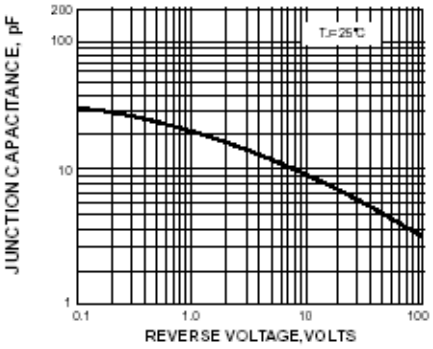
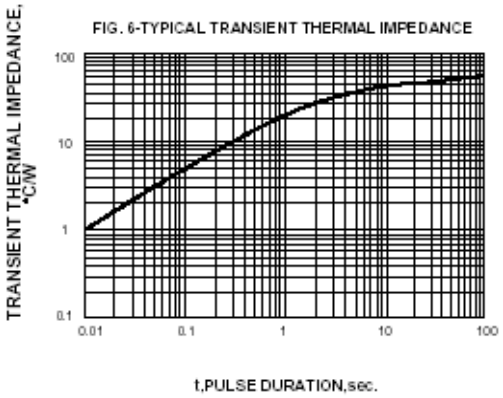
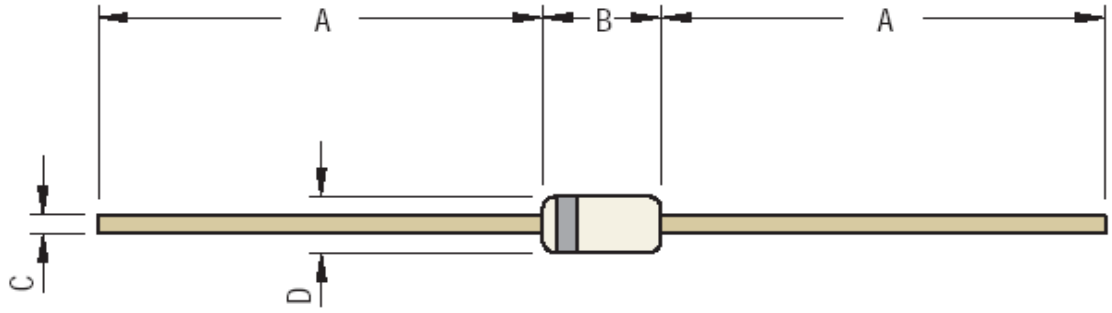


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



DO-41P Axial Lead Plastic Package



52mm - DO-41P Package

DIM	Min	Max
A	25.40	
B	4.20	5.20
C	0.70	0.90
D	2.00	2.70

All Dimensions are in mm

26mm - DO-41P Package

DIM	Min	Max
A	14.60	
B	4.10	5.20
C	0.71	0.86
D	2.00	2.70

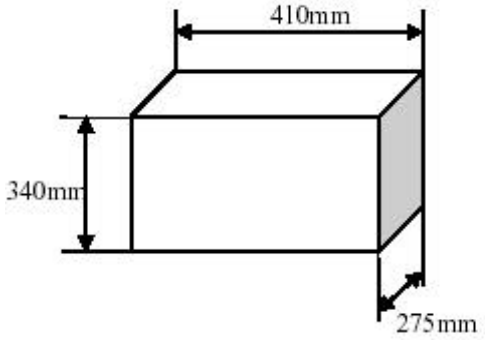
All Dimensions are in mm

1.The method of ammo box is shown in figure 1.

2.Dimension and quantity of ammo box .

Product outline	A	B	C	
	mm	mm	mm	kpcs/box
DO-41P	255	74	145	5

3.Carton dimension



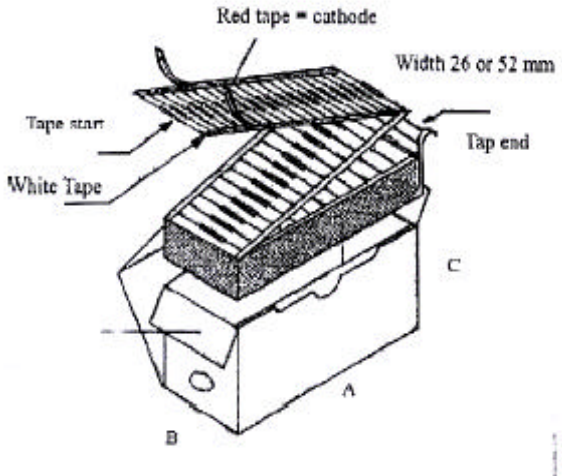


Figure 1

4.Packing quantity

Product outline	DO-41P
Innerbox/Carton	10
Quantity/Carton	50kpcs

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Customer Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's 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 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.cdil.com

1N4001_1N4007Rev04_281212E