

## SCHOTTKY BARRIER RECTIFIERS



**1N5817 - 1N5818  
1N5819  
DO-41 (Plastic)  
Axial Lead Plastic  
Package**

Suited for use as Rectifiers in Low Voltage, High Frequency Inverters, Free Wheeling Diodes and Polarity Protection Diodes

### MAXIMUM RATINGS

DESCRIPTION	SYMBOL	1N5817	1N5818	1N5819	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	20	30	40	V
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	24	36	48	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
*Average Rectified Forward Current ( $V_R(\text{equiv}) \leq 0.2V V_R(\text{dc})$ , $T_L=90^\circ\text{C}$ $R_{th(j-a)}=80^\circ\text{C/W}$ , P.C Board Mounting, see **, $T_a=55^\circ\text{C}$ )	$I_O$	1.0			A
Ambient Temperature (Rated $V_R(\text{dc})$ , $P_{F(AV)}=0$ , $R_{th(j-a)}=80^\circ\text{C/W}$ )	$T_a$	85	80	75	$^\circ\text{C}$
Non-Repetitive Peak Surge Current (surge applied at rated load conditions, half - wave, single phase 60Hz, $T_L=70^\circ\text{C}$ )	$I_{FSM}$	25 (for one cycle)			A
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	- 65 to +125			$^\circ\text{C}$
Peak Operating Junction Temperature (forward current applied)	$T_{j(pk)}$	150			$^\circ\text{C}$

### \*THERMAL CHARACTERISTICS

Thermal Resistance from Junction to Ambient in free air	$R_{th(j-a)}$	80	$^\circ\text{C/W}$
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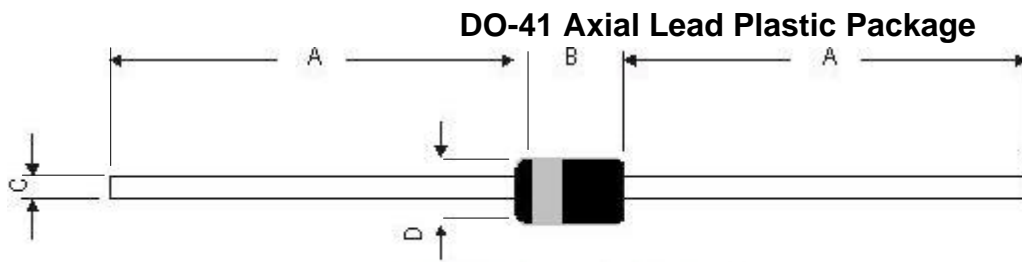
### ELECTRICAL CHARACTERISTICS ( $T_L=25^\circ\text{C}$ unless specified otherwise )\*

DESCRIPTION	SYMBOL	TEST CONDITION	1N5817	1N5818	1N5819	UNIT
Maximum Instantaneous Forward Voltage Drop	$V_F$	$I_F=0.1\text{A}$	0.32	0.330	0.34	V
		$I_F=1.0\text{A}$	0.45	0.550	0.60	V
		$I_F=3.0\text{A}$	0.75	0.875	0.90	V
Maximum Instantaneous Reverse Current	$I_R$	@ rated $V_R$ $T_L=25^\circ\text{C}$	1			mA
		$T_L=100^\circ\text{C}$	10			mA

\*Lead temperature reference is cathode lead 1/32" from case

\*\* Pulse test: Pulse width=300ms, Duty cycle=2%

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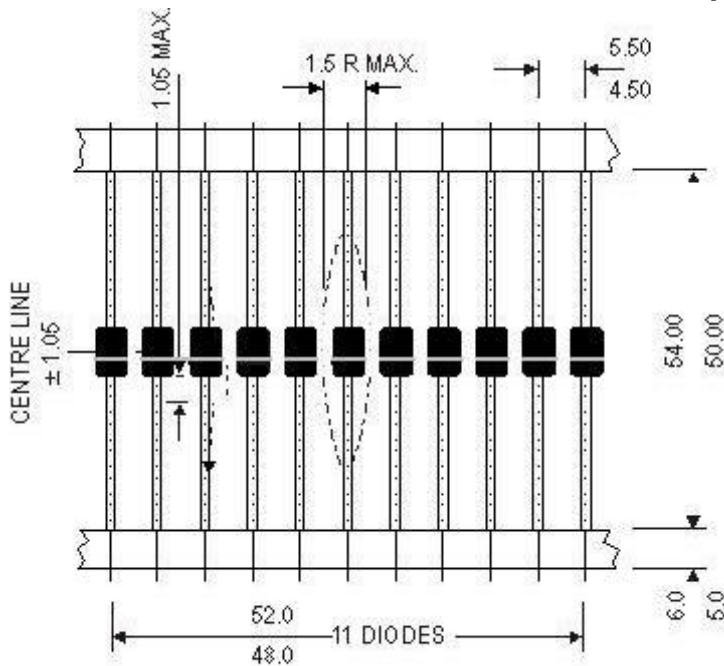


DIM	MIN	MAX
A	27.90	—
B	4.05	5.20
C	0.75	0.87
D	2.30	2.70

All dimensions are in mm.

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

**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**

### **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).

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**Continental Device India Limited**

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119  
email@cdil.com www.cdilsemi.com