

SCHOTTKY BARRIER RECTIFIERS

SB120 - SB1A0

DO-41P
Axial Lead Plastic
Package



For use in Low Voltage, High Frequency Inverters, Free Wheeling Diodes and Polarity Protection Applications

Maximum RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating @ 25°C Ambient Temperature unless specified otherwise. Single Phase, half wave Resistive or Inductive Load. For Capacitive Load, Derate by 20%)

DESCRIPTION	SYMBOL	SB120	SB130	SB140	SB150	SB160	SB180	SB1A0	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	57	71	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Average Forward Rectified Current 0.375" (9.5mm) Lead Length @ $T_L=75^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	40							A
Maximum Forward Voltage @ $I_F=1.0\text{A}$	$*V_F$	0.55			0.7		0.75	0.83	V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ @ Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	$*I_R$	0.5 10							mA mA
Junction Capacitance	$***C_j$	TYP110							pF
Thermal Resistance Junction to Ambient	$**R_{th(j-a)}$	TYP50							$^\circ\text{C/W}$
Thermal Resistance Junction to Lead	$**R_{th(j-L)}$	TYP15							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	-65 to +125			-65 to +150				$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to +150							$^\circ\text{C}$

* Pulse Width=300ms, 1% Duty Cycle.

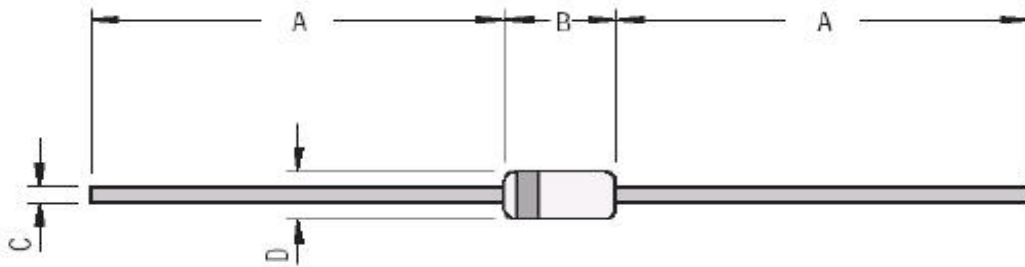
** Thermal Resistance (from Junction to Ambient) Vertical P.C.B. Mounted with 1.5 x 1.5" (38 x 38mm) Copper Pads

***Measured @ 1MHz and Reverse Voltage Of 4V

SB120_SB1A01Rev200105E

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

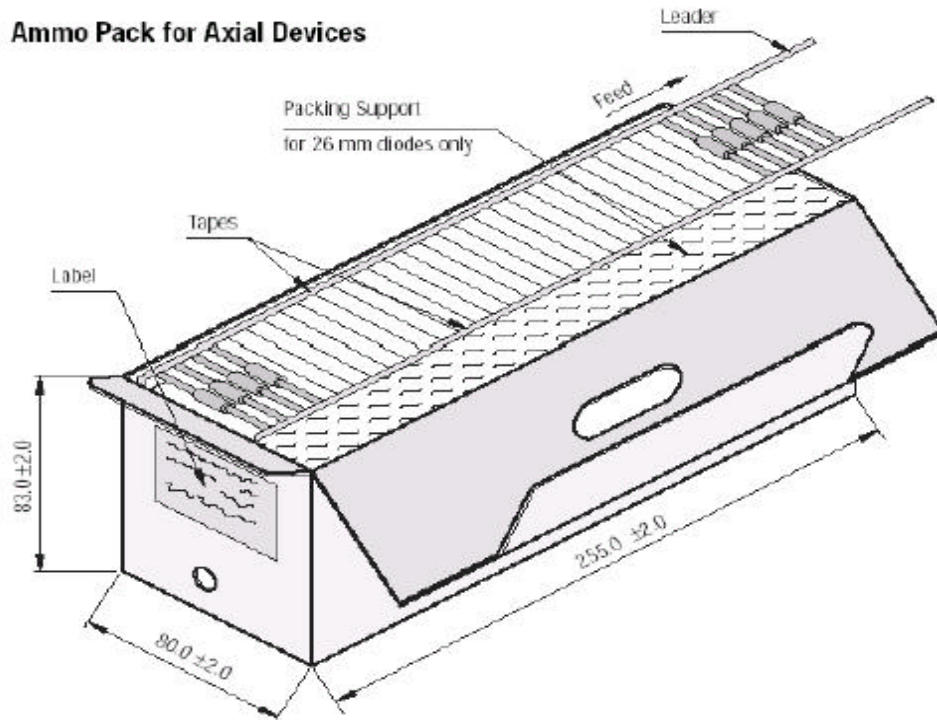
All Dimensions are in mm



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DO-41P Package and Packaging
AMMO PACKING FOR DO-41P

Ammo Pack for Axial Devices



All Dimensions are in mm

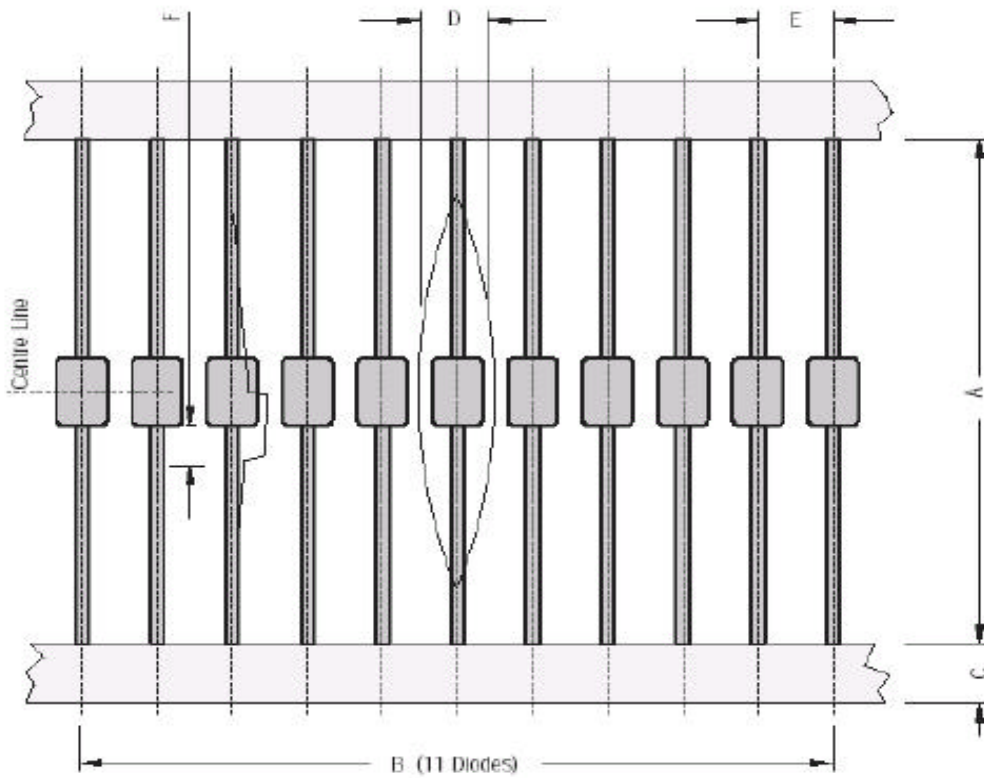
Packaging Information

Package/ Case Type	Packaging Type	Std. Packing		Inner Carton		Outer Carton		
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
DO-41P	T&A	5,000	5K	27 x 8 x 14	1.96	45K	46 x 35 x 25	17.5

T & A: Tape and Ammo Pack

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DO-41P Package and Packaging



DO-41P 52 mm Tape		
DIM	Min	Max
A	50.0	54.0
B	95.0	105.0
C	5.60	6.50
D		1.5R
E	9.50	10.50
F		1.25

All Dimensions are in mm

TAPE SPECIFICATIONS

1. 300 mm (Min) leader tape on every roll.
2. No. of empty places allowed 0.25% without consecutive empty places.
3. Ends of leads shall normally not protrude beyond the tapes.
4. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.

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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 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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