

## 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.

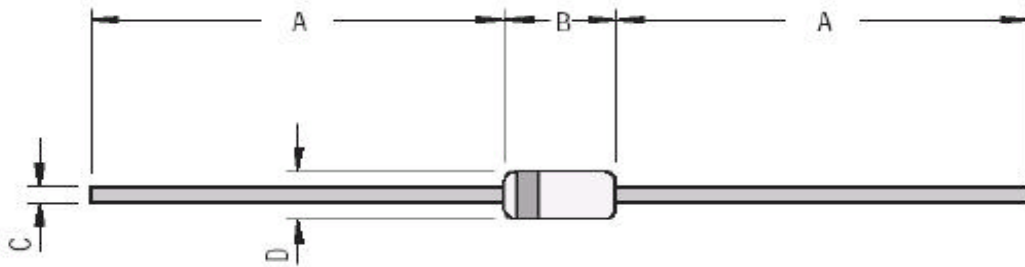
\*\* Thermal Resistance (from Junction to Ambient) Vertical P.C.B. Mounted with 1.5 x 1.5" (38 x 38mm) Copper Pads

\*\*\*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

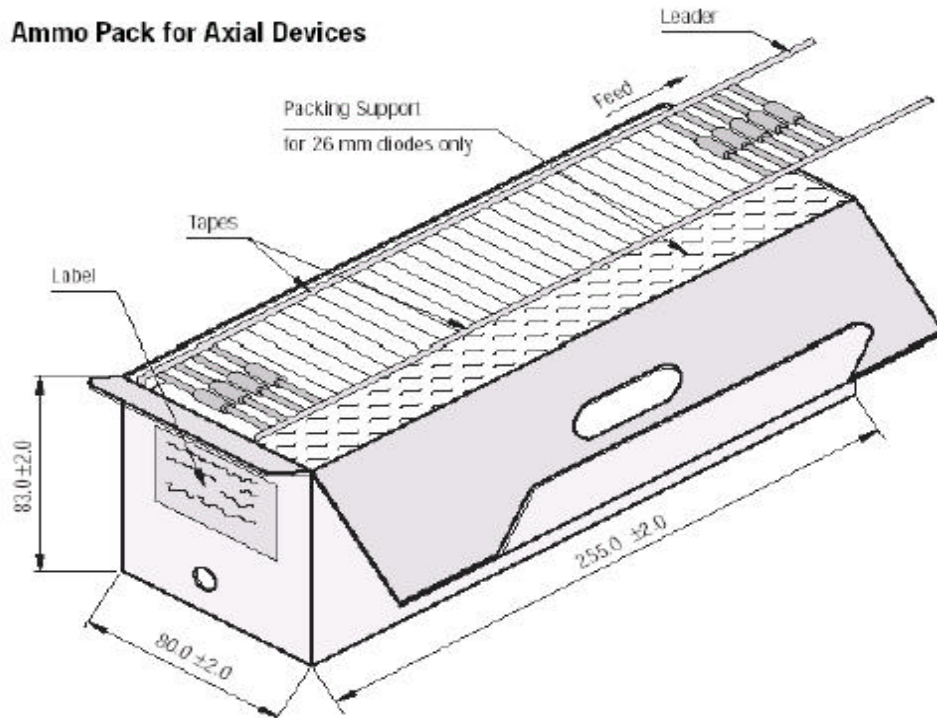
All Dimensions are in mm



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

**Ammo Pack for Axial Devices**



All Dimensions are in mm

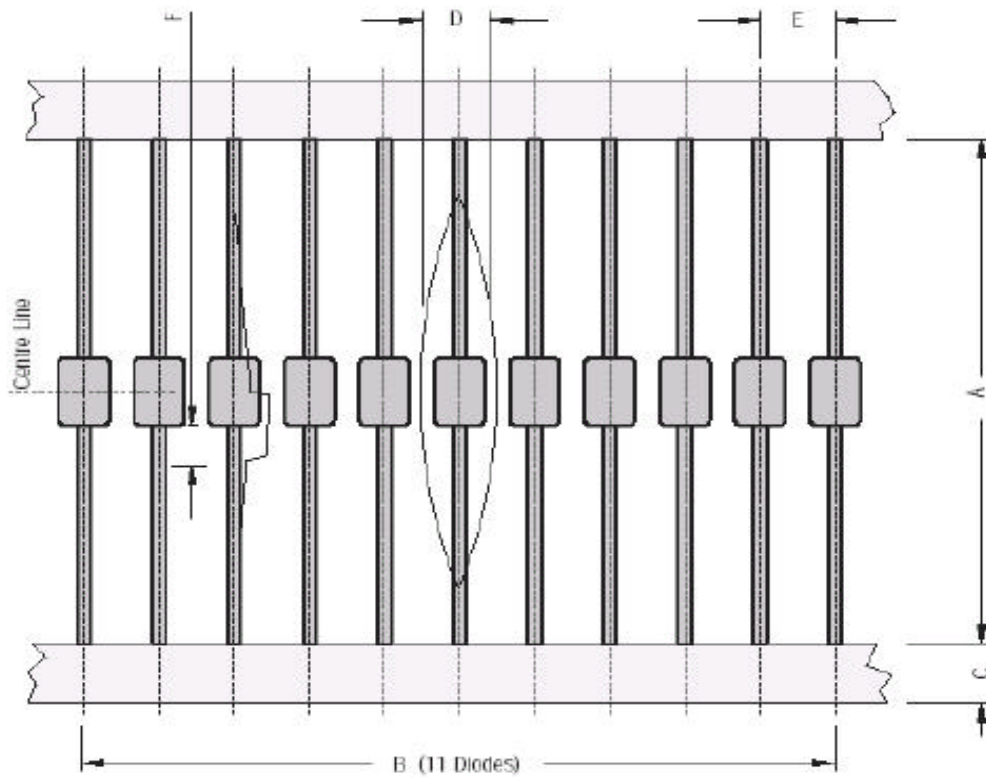
**Packaging Information**

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.

**DO-41P  
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