LITE-ON SEMICONDUCTOR

BHDS1100

SCHOTTKY
SURFACE BRIDGE RECTIFIER

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 1.0 Amperes

FEATURES

- Rating to 100V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Qualified according to AEC-Q101 Rev_C

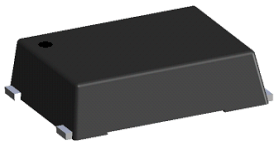
APPLICATION

- Energy saving Lamps
- Mobile Battery charger

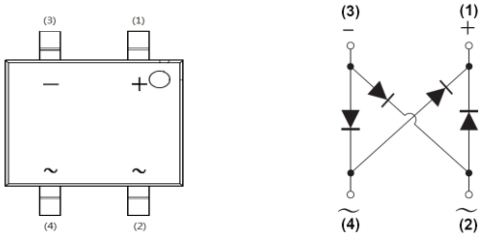
MECHANICAL DATA

- Case Material: “Green” molding compound, UL flammability classification 94V-0,“Halogen-free”.
- Moisture Sensitivity: Level 1 per J-STD-020
- Lead free finish, RoHS compliant
- Weight: 92.3 mg (Approximate)
- Marking code: B1100

HDS



Pin Assignment



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	100	V
Maximum DC blocking voltage		V_{DC}	100	V
Maximum Average rectified output current	@T_C=140°C	$I_{(AV)}$	1.0	A
Peak forward surge current 8.3ms single half sine-wave Superimposed on rated load.		I_{FSM}	30	A
I^2t Rating for fusing (1ms<t<8.3ms)		I^2t	3.7	A^2S
Operating junction and Storage Temperature range		T_J, T_{STG}	-55 ~ +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	TYP	MAX	UNIT
Forward voltage (Note1)	I_F=1.0A	T_J=25°C T_J=125°C	V_F	-- --	0.85 0.60	V
Leakage current	V_R=100V	T_J=25°C T_J=100°C	I_R	-- --	50 5	uA mA
Typical junction capacitance (Note 2)			C_J	55		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	$RthJ_A$ $RthJ_C$	10 6	°C/W

Note :

(1) 300us pulse width, 2% duty cycle.
(2) Measured at 1.0MHz and applied voltage of 4.0VDC.
(3) Thermal resistance test performed in accordance with JESD-51.

REV.-2, Dec-2020, KBHB02

RATING AND CHARACTERISTIC CURVES
BHDS1100

FIG.1 FORWARD CURRENT DERATING CURVE

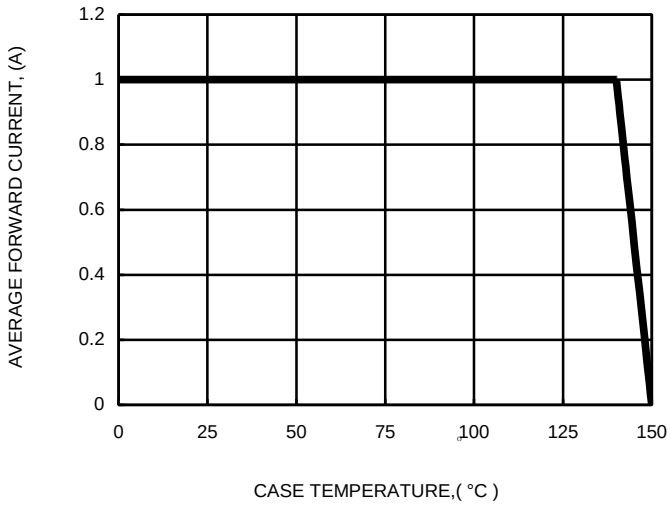


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

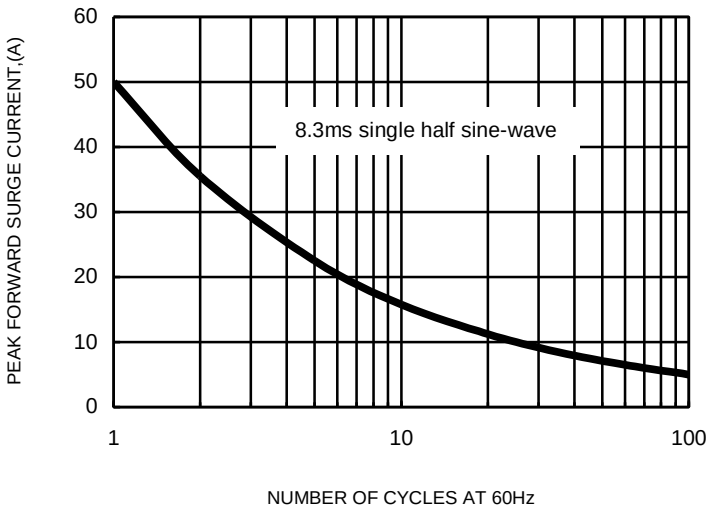


FIG.3 TYPICAL FORWARD CHARACTERISTICS

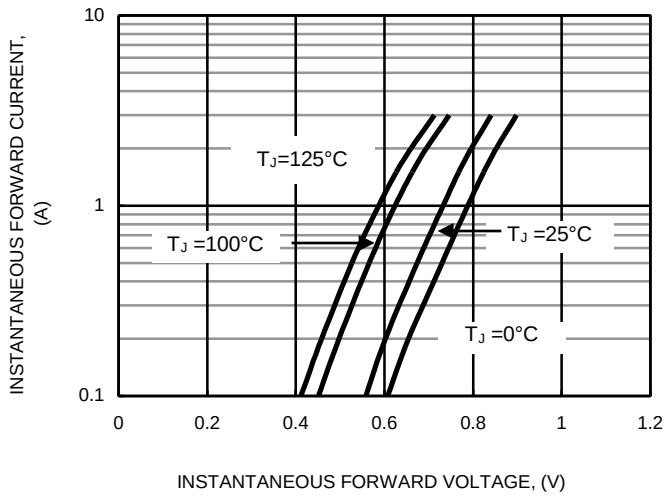


FIG.4 TYPICAL JUNCTION CAPACITANCE

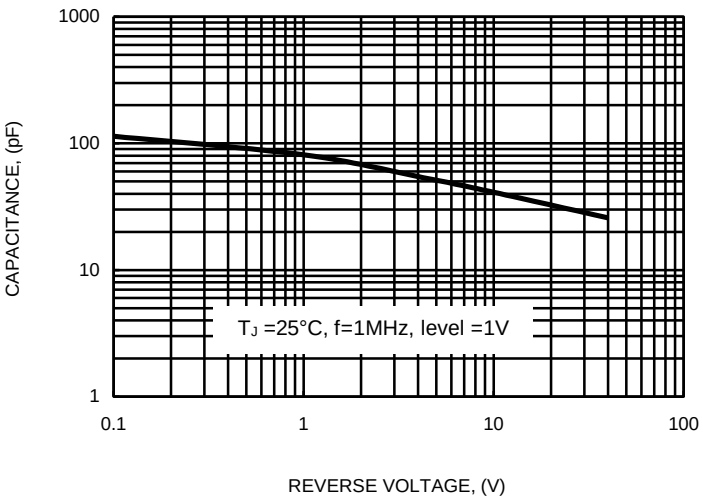
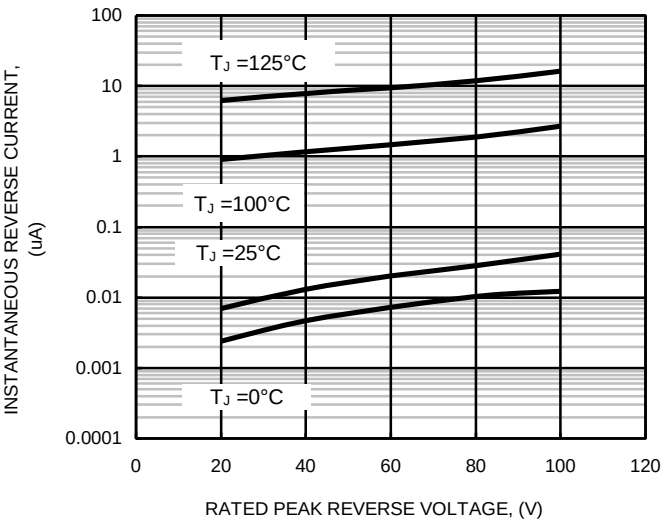
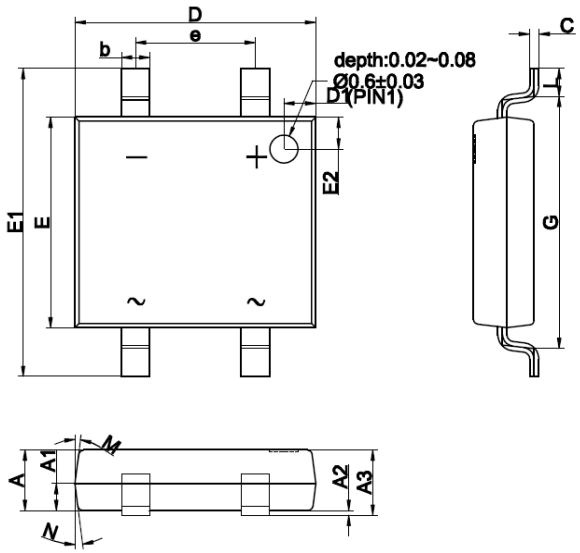


FIG.5 TYPICAL REVERSE CHARACTERISTICS

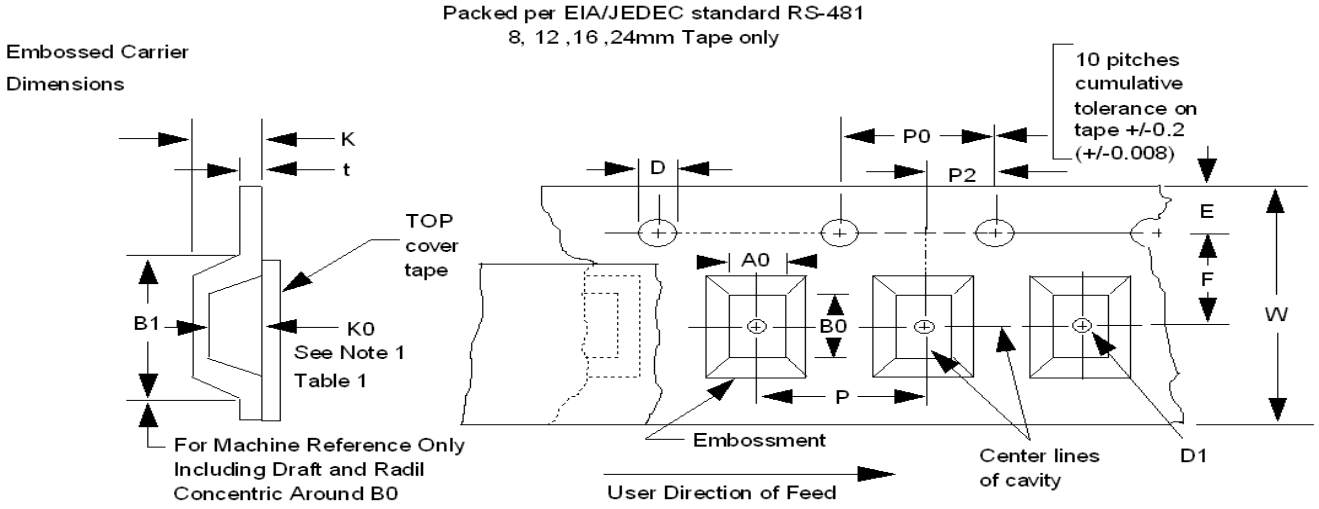


Package Dimension :



HDS		
DIM	MIN	MAX
A	1.20	1.30
A1	0.43	0.63
A2	0.00	0.15
A3	1.20	1.40
b	0.45	0.75
C	0.10	0.30
D	4.85	5.25
D1	0.45	0.85
e	2.54 TYP.	
E	4.25	4.65
E1	6.40	6.80
E2	0.45	0.85
G	5.20	5.60
L	0.40	0.80
M	7° TYP.	
N	7° TYP.	
All dimension in millimeter		

Embossed Carrier Dimensions



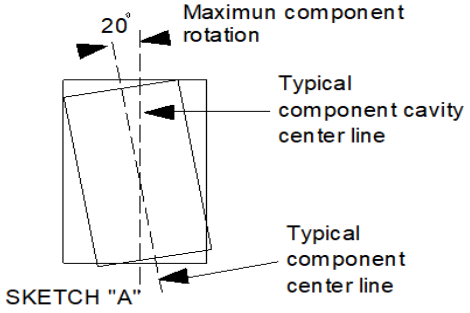
EMBOSSED TYPE **ALL DIMENSION IN MILLIMETERS AND (INCHES)**

TAPE SIZE	D	E	PO	t (MAX)	A0B0K0	
12mm	1.55+0.10/-0.0 (0.059 +0.004 -0.00)	1.75+/-0.10 (0.069+/-0.004)	4.0+/-0.10 (0.157+/-0.004)	0.6 (0.024)	SEE NOTE 1	CONSTANT DIMENSION

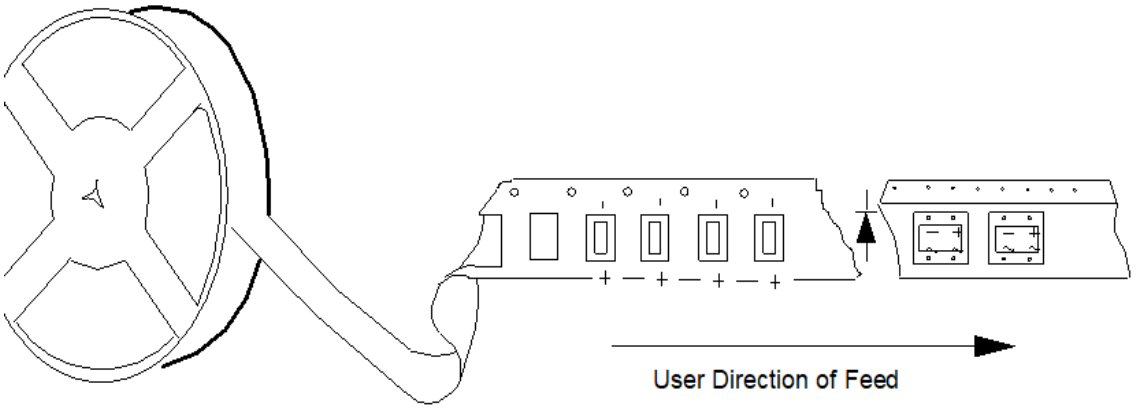
TAPE SIZE	B1 MAX	D1 MIN	F	K MAX	P2	R	W	P	
12mm	8.2 (0.323)	1.5 (0.59)	5.5+/-0.05 (2.17+/-0.002)	4.5 (0.117)	2.0+/-0.05 (0.079+/-0.002)	30 (1.181)	12.0+/-0.30 (0.472+/-0.012)	8.0+/-.10 (0.315+/-0.004)	VARIABLE DIMENSIONS

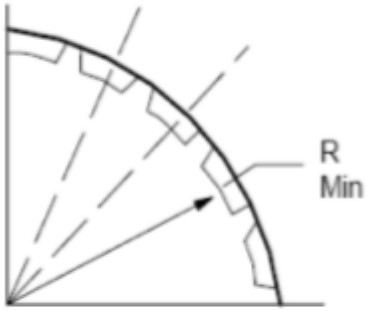
Note 1: A0B0K0 are determined by component size. The clearance between the component and the cavity must bewithin 0.05 min. to 0.50 max. for 8 mm tape. 0.05 min. to 0.65 max. for 12mm tape. 0.15 min. to 0.90 max. for 16mm tape and 0.05 min. to 1.00 max. for 24 mm tape and larger .the component cannot rotate more than 20 within the determined cavity . see sketch "A" below.

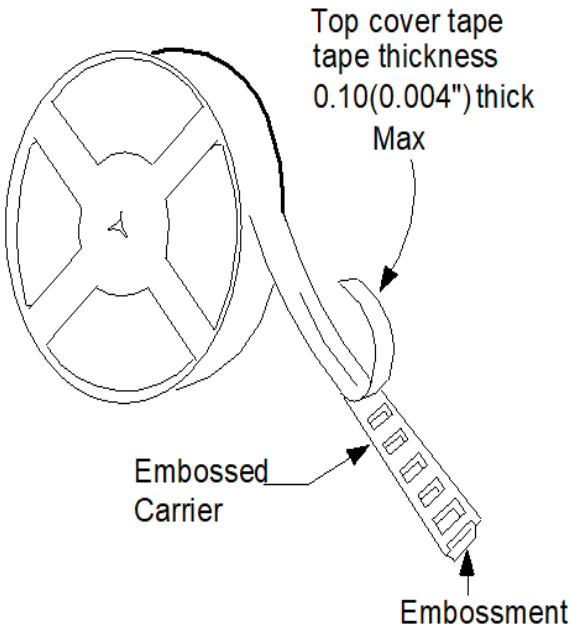
2: Tape and component shall pass around radius "R" without damage

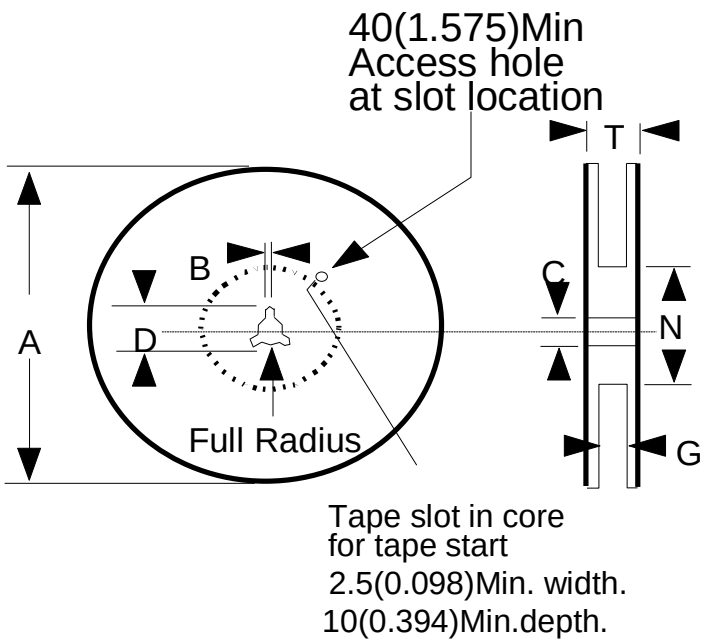


Polar Units





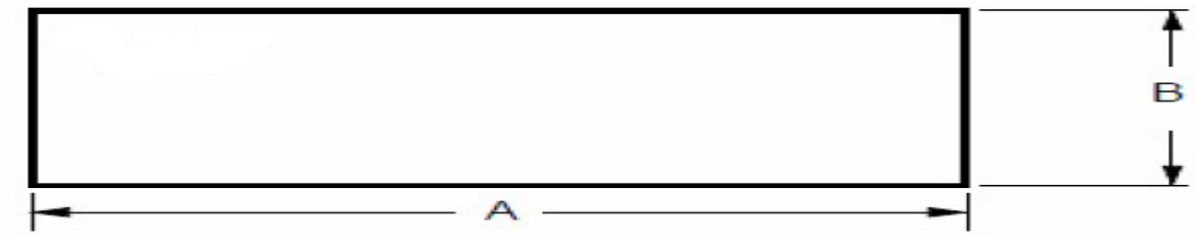




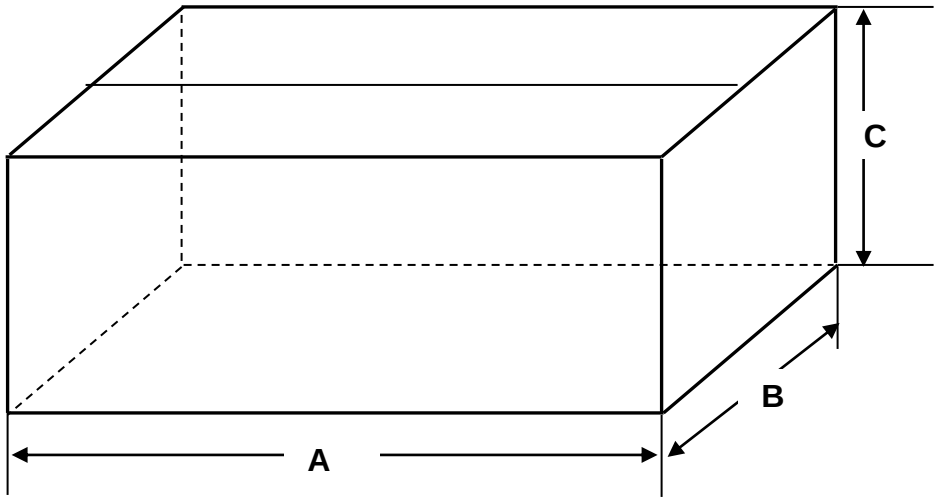
REEL DIMENSIONS

TAPE SIZE	A MAX	B MAX	C	D MIN	N MIN	G	T MAX
12mm	330 (13.0)	1.5 (0.06)	13.0+/-0.5 (0.512+/-0.020)	20.2 (0.80)	7.5 (2.952)	12.4+2.0/-0.0 (0.488+0.078/-0.0)	18.4 (0.724)

1. SMA/B 襯板



2. CARTON



UNIT:mm

DEVICE TYPE	Q'TY/REEL (PCS)	REEL DIA (mm)	襯板 SIZE (mm)	CARTON SIZE (mm)	Q'TY/CARTON (PCS)
HDS	3000	330	1300x200	355x245x350	36K

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