A Product Line of Diodes Incorporated

LITE-ON SEMICONDUCTOR

BABS260

SCHOTTKY SURFACE BRIDGE RECTIFIER

REVERSE VOLTAGE – 60 Volts
FORWARD CURRENT – 2.0 Amperes

FEATURES

- Rating to 60V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Qualified according to AEC-Q101 Rev_C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

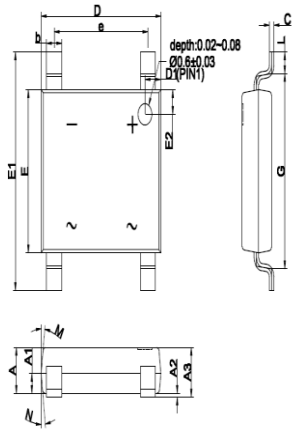
APPLICATION

- 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: 98 grams (Approximate)
- Marking code: BABS260

ABS



ABS		
DIM	MIN	MAX
A	1.20	1.30
A1	0.43	0.63
A2	0.00	0.10
A3	1.20	1.40
b	0.50	0.80
C	0.10	0.30
D	4.85	5.25
D1	0.45	0.85
e	4.00 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		

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}	60	V
Maximum DC blocking voltage		V_{DC}	60	V
Maximum Average rectified output current	@T_C=110°C	$I_{(AV)}$	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.		I_{FSM}	50	A
I^2t Rating for fusing (1ms<t<8.3ms)		I^2t	10.4	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 (Note4)	I_F=1.0A	T_J=25°C T_J=125°C	V_F	0.59 0.49	-- --	V
	I_F=2.0A	T_J=25°C T_J=125°C		-- 0.59	0.72 --	
Leakage current	V_R=60V	T_J=25°C T_J=125°C	I_R	-- 0.7	20 100	uA mA

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical junction capacitance (Note 5)	C_J	125	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 6,7)	$RthJ_C$ $RthJ_L$	14 30	°C/W

REV.-2, Sep-2021,KBHA04

Note :

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us pulse width, 2% duty cycle.
5. Measured at 1.0MHz and applied voltage of 4.0VDC.
6. Thermal resistance test performed in accordance with JESD-51.
7. The unit mounted on glass-epoxy substrate with 1oz/ft2 with Copper pad(5mm x 7mm)

RATING AND CHARACTERISTIC CURVES
BABS260

FIG.1 FORWARD CURRENT DERATING CURVE

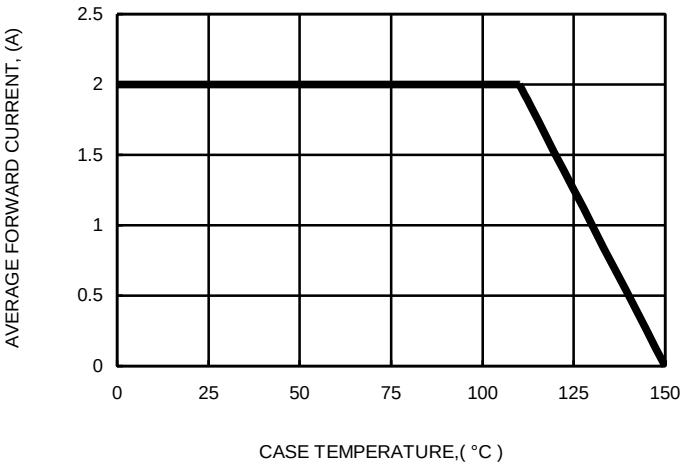


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

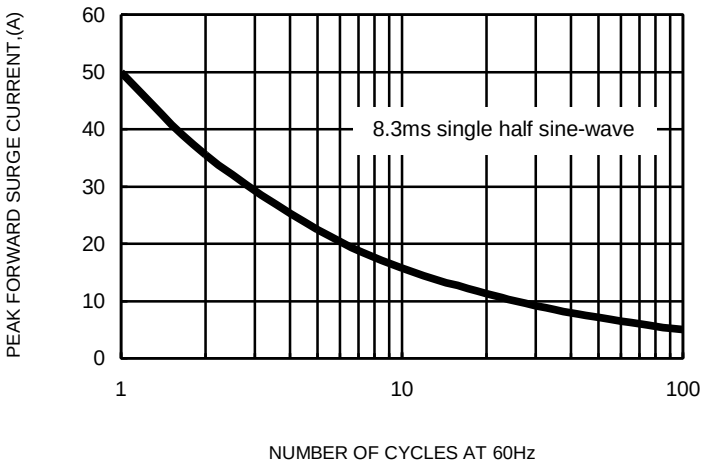


FIG.3 TYPICAL FORWARD CHARACTERISTICS

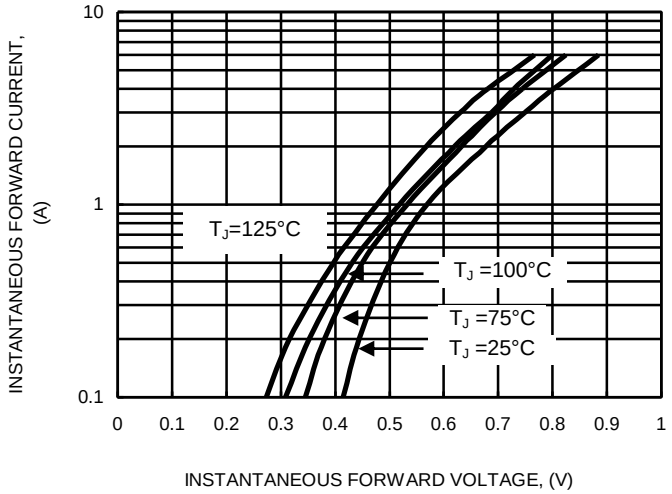


FIG.4 TYPICAL JUNCTION CAPACITANCE

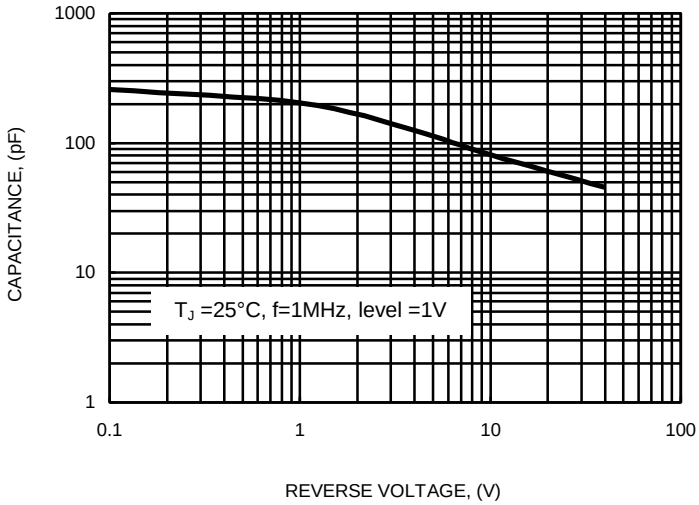
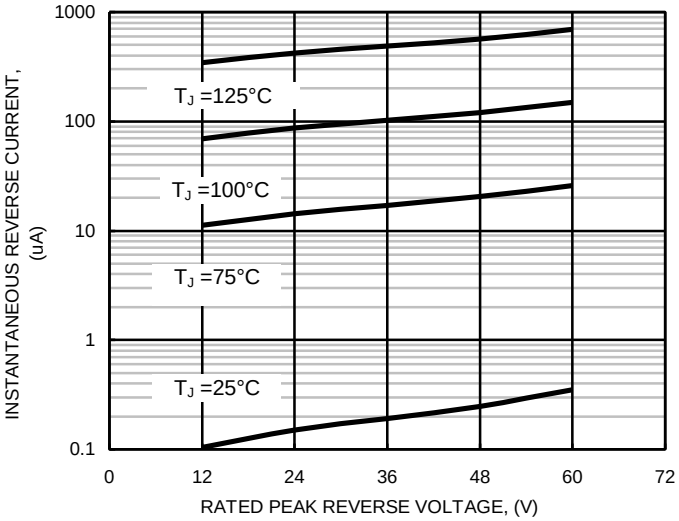


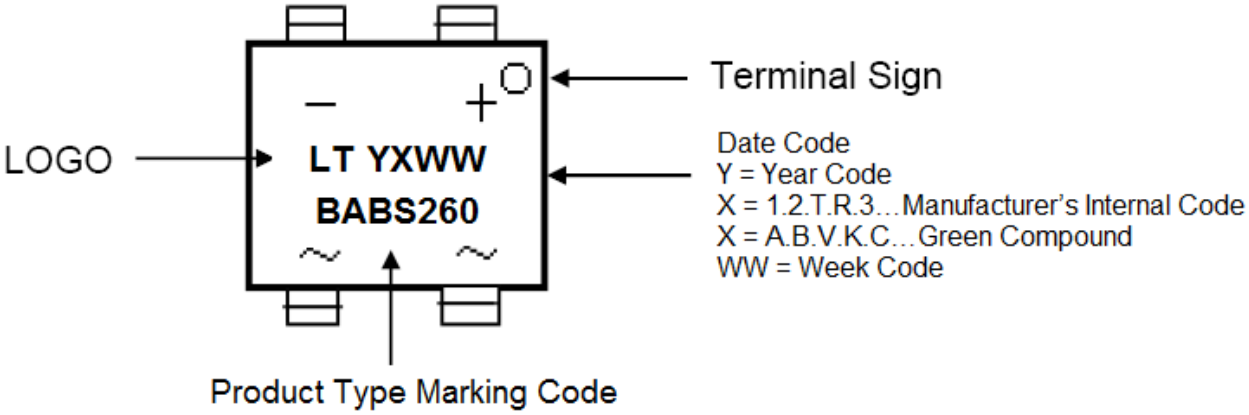
FIG.5 TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Case	Packaging
BABS260	ABS	3000pcs / Tape & Reel

Marking Information :



PACKAGING INFORMATION
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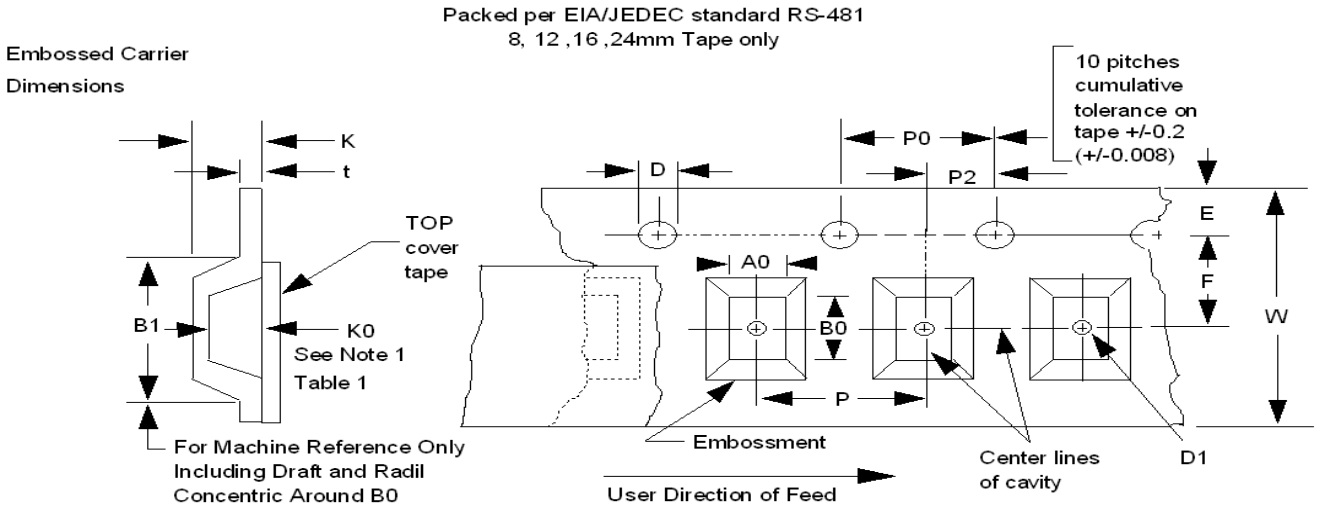
Embossed Carrier Dimensions



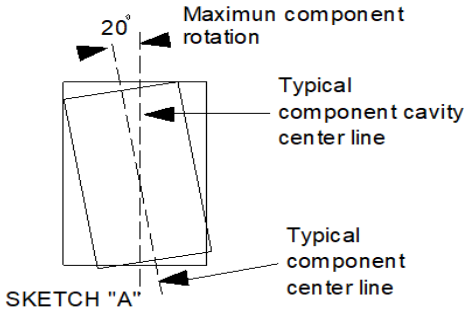
EMBOSSED TYPE **ALL DIMENSION IN MILLIMETERS AND (INCHES)**

TAPE SIZE	D	E	PO	t (MAX)	A0B0K0	CONSTANT DIMENSION
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	

TAPE SIZE	B1 MAX	D1 MIN	F	K MAX	P2	R	W	P	VARIABLE DIMENSIONS
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)	

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



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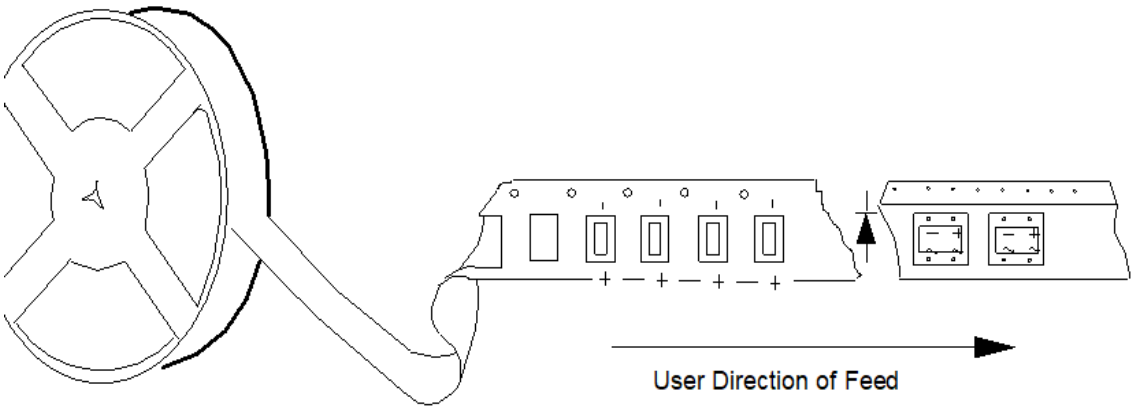
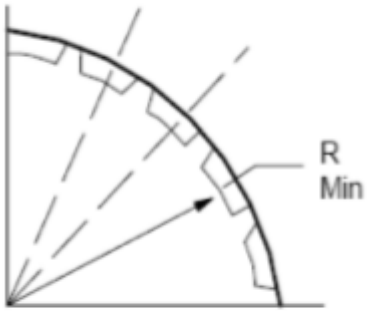
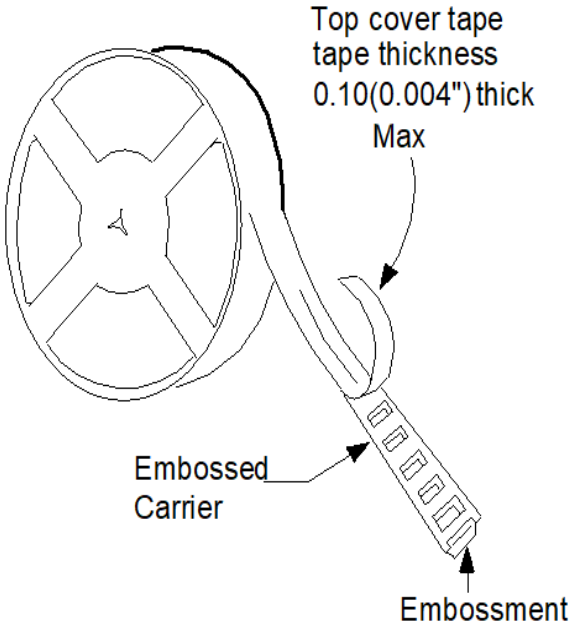
Polar Units







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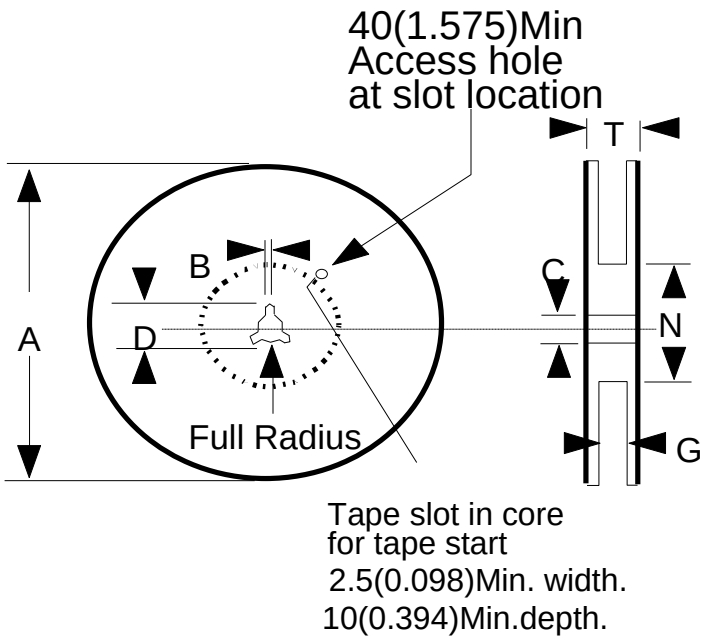

REEL DIMENSIONS

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)

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