

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 4 Amperes

GENERAL DESCRIPTION

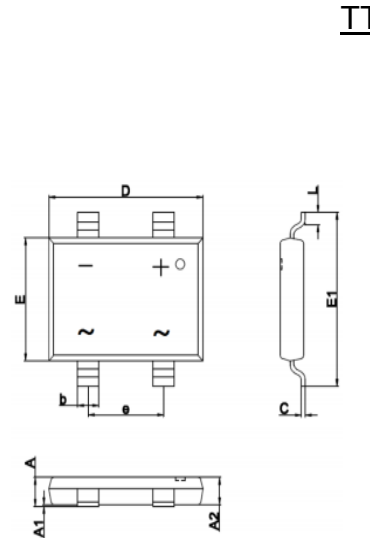
Suitable for AC-to-DC bridge full wave rectification for SMPS, LED lighting, adapters, battery chargers, home appliances, office equipment, and telecommunication.

FEATURES

- Rated at 1000V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique
- Qualification is according to AEC-Q101 Rev_C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Case Material: "Green" Molding compound, UL flammability classification 94V-0, "Halogen-free".
- Polarity indicator: As marked on body
- Marking : RTT410
- Lead free Sensitivity: Level 1 per J-STD-020
- Weight: 0.389 grams (Approximate)



II		
DIM	MIN	MAX
A	1.45	1.80
A1	0.00	0.15
A2	1.45	1.65
C	0.15	0.35
D	10.05	10.35
E	6.85	7.15
E1	9.75	10.05
L	0.45	0.95
b	1.30	1.50
e	4.90	5.10
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}	1000	V
Maximum DC blocking voltage	V_{DC}	1000	V
Average rectified forward current	$I_{(AV)}$	4	A
Peak forward surge 8.3ms single half sine-wave	I_{FSM}	100	A
I^2t Rating for fusing (1ms<t<8.3ms)	I^2t	41.5	A ² S
Operating and Storage temperature range	T_j, T_{STG}	-55 ~ +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 4)	$I_F = 4A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	V_F	-- 1.1	1.3 --	V
Reverse leakage current	$V_R = 1000V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	-- 61	5 200	uA
Typical junction capacitance (Note 5)		C_J	42		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 6,7)	R_{thJc} R_{thJl}	5 8	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Reverse recovery time	$I_F = 0.5A, I_{rr} = 0.25A, I_R = 1.0A$	T_{rr}	250	ns

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 reverse voltage of 4.0 V DC
- (6) Thermal Resistance test performed in accordance with JESD-51.
- (7) The unit mounted P.B.C(50mm*50mm)+Test door open + fan Rated current

REV.-4, Oct-2021, KBEA01

**RATING AND CHARACTERISTIC CURVES
RTT410(LS)**

FIG.1- FORWARD CURRENT DERATING CURVE

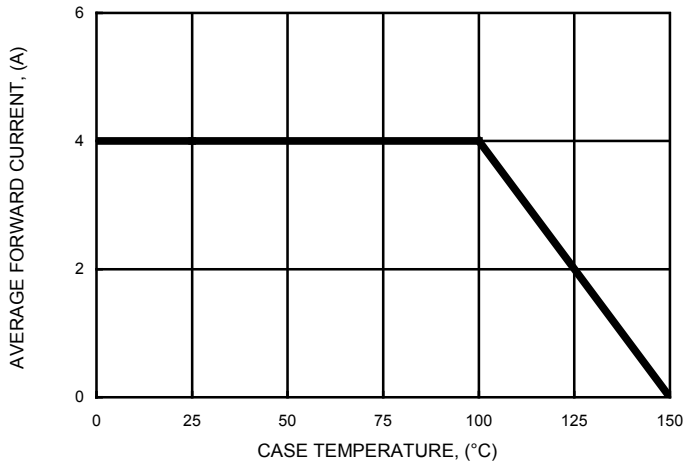


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

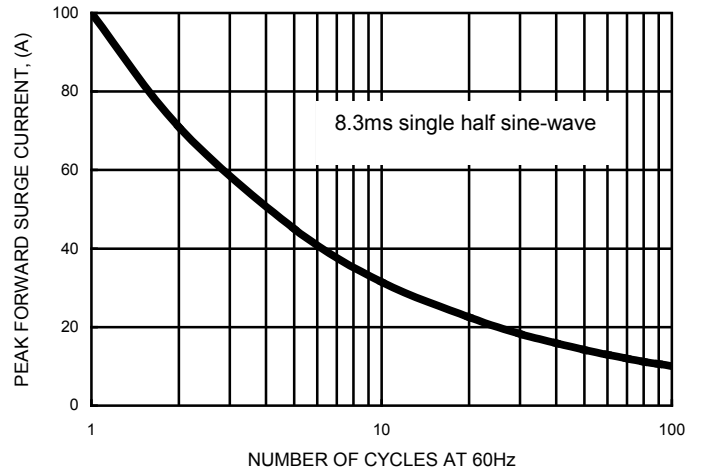


FIG.3- TYPICAL FORWARD CHARACTERISTICS

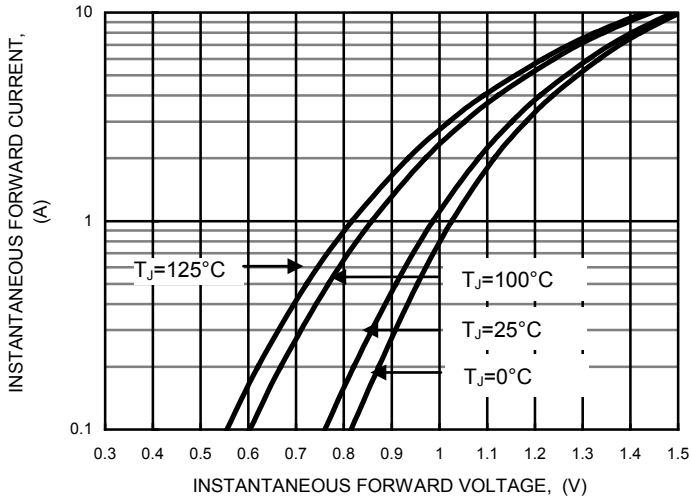


FIG.4- TYPICAL JUNCTION CAPACITANCE

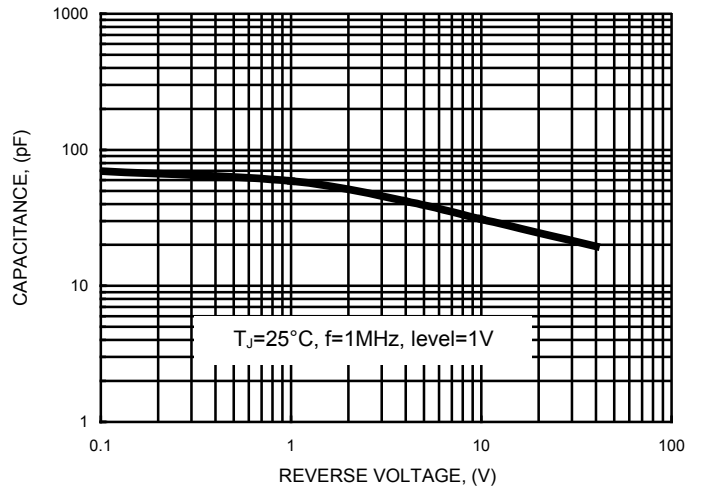
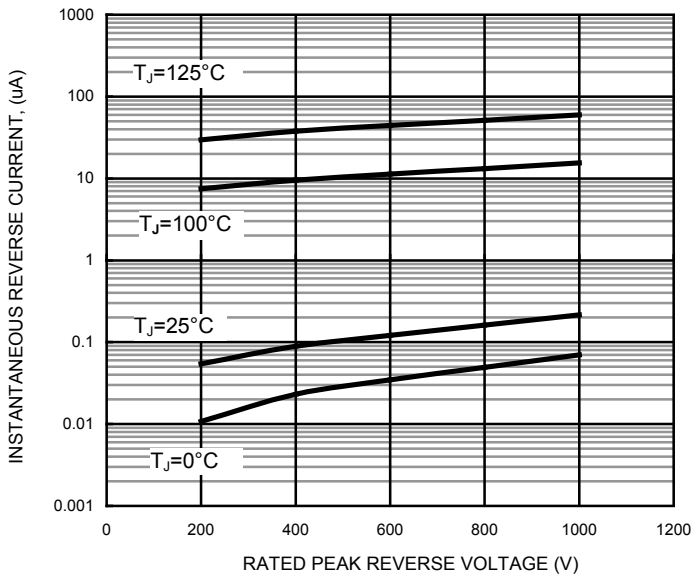


FIG.5- TYPICAL REVERSE CHARACTERISTICS

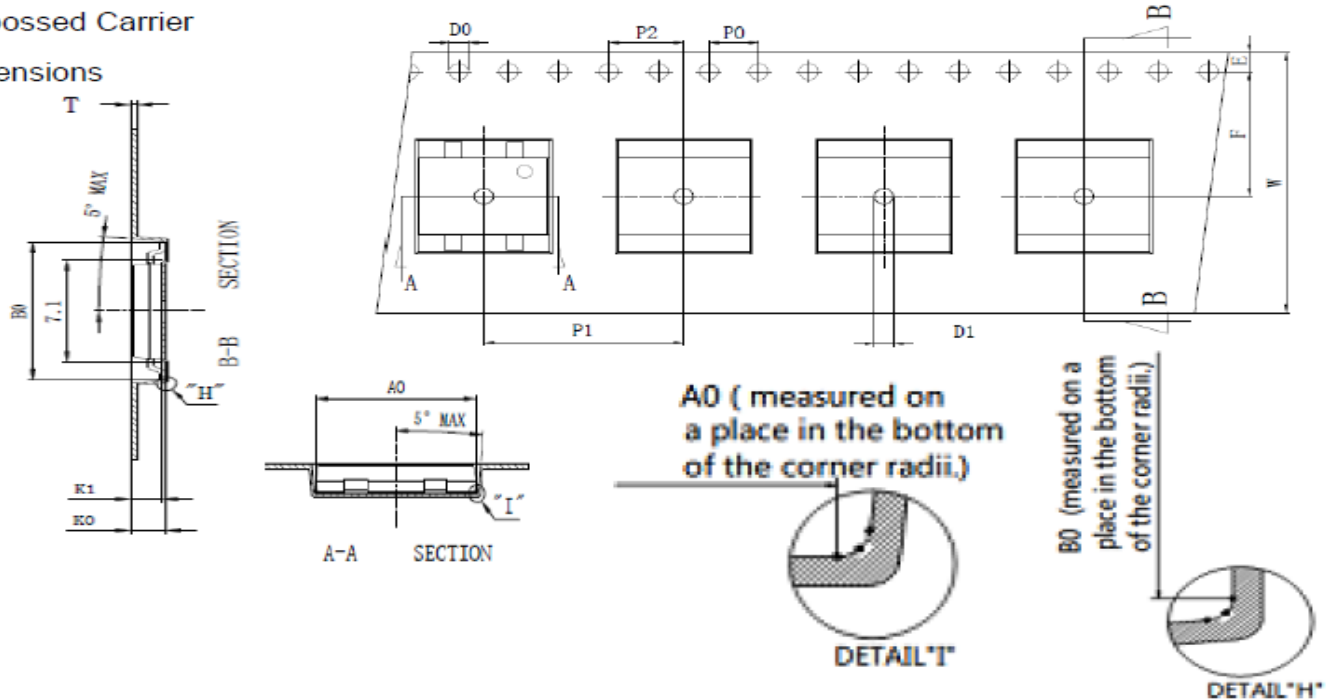


PACKAGING INFORMATION
RTT410(LS)

Embossed Carrier Dimensions Information:

Embossed Carrier

Dimensions



EMBOSSD TYPE

ALL DIMENSION IN MILLIMETERS AND (INCHES)

TAPE SIZE	AO	BO	KO	PO	P1	P2	T
24mm	10.55±0.10	10.30±0.10	2.05±0.10	4.00±0.10	16.00±0.10	2.00±0.10	0.30±0.05

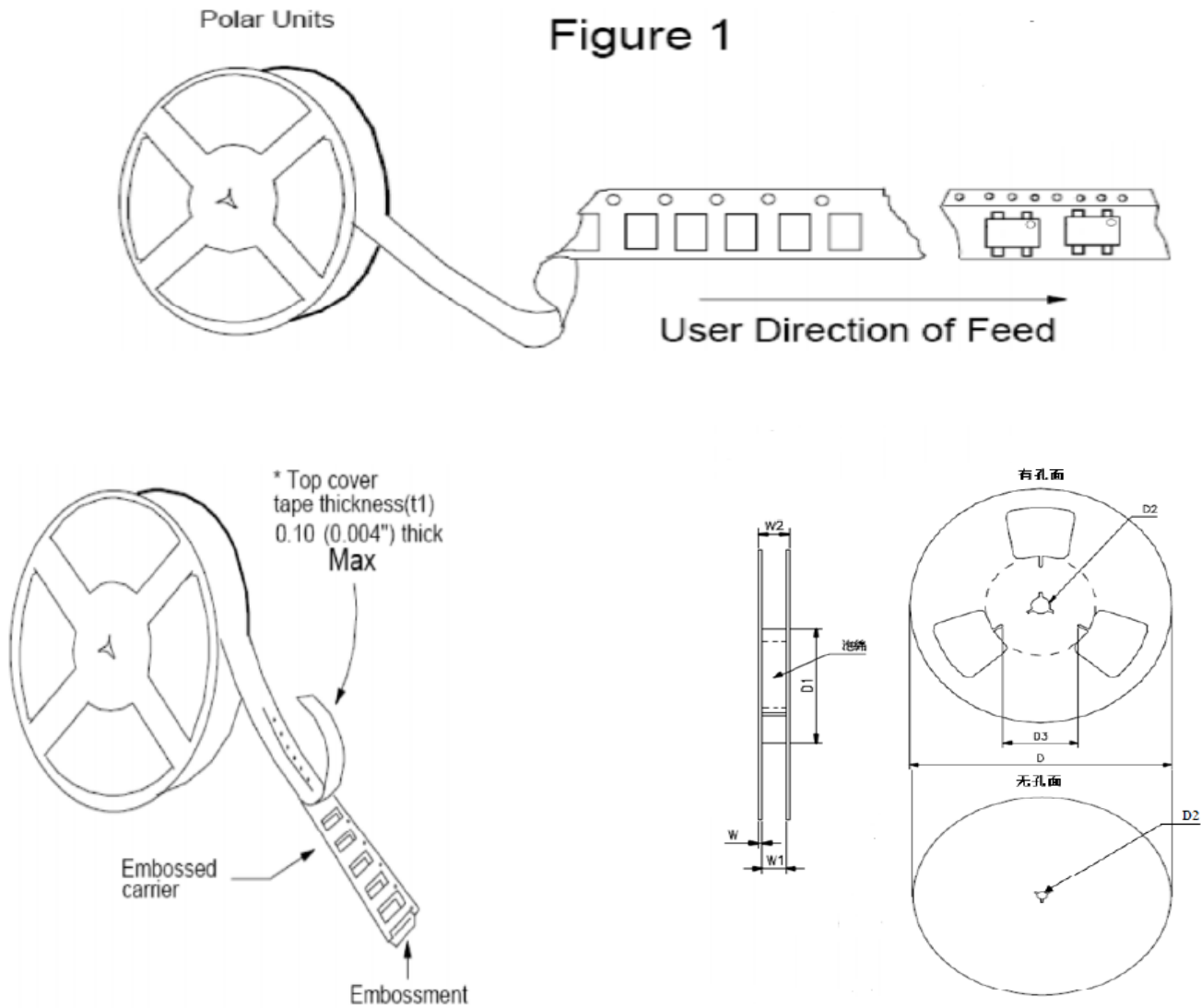
PRODUCT TYPE	E	F	DO	D1	W	10PO	K1
TT	1.75±0.10	11.50±0.10	1.50±0.10	1.50±0.10	24.0±0.30	40.0±0.20	1.90±0.10

REMARKS:

1. ALL other requirements not mentioned here to fulfill EIA-481-D
2. AO&BO measure on a place in the bottom of corner radii (see DETAIL "I" and DETIL "H")
3. KO measured from a place on the inside bottom of the pocket to top surface of carrier
4. P2 and F are measured from centerline of sprocket hole to centerline of pocket
5. 10 Sprocket hole pitch cumulative tolerance is ±0.20mm
6. Unless otherwise specified RO.2max
7. Surface resistivity of carrier tape should be within 10-4-10-8 Ω/square where the relative humidity is under 60% and the temperature is in between 20°C to 26

PACKAGING INFORMATION
RTT410(LS)

Figure 1



REEL DIMENSIONS

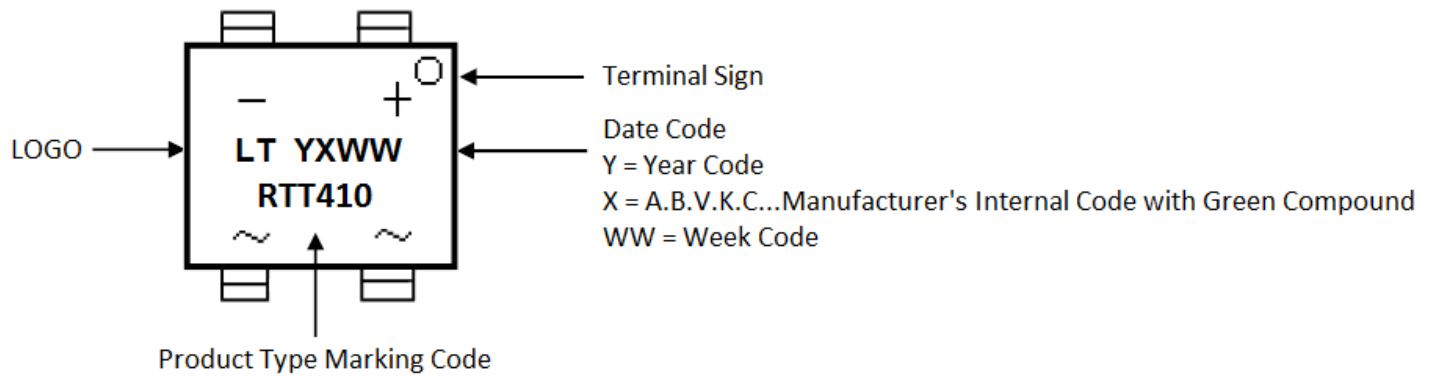
TAPE SIZE	D	D1	D2	D3	W	W1	W2
24mm	330±2.0	100±2.0	13.0±0.2	75.0±2.0	2.30±0.2	24.4±2.0	<31

DEVICE TYPE	Q'TY/REEL (PCS)	REEL DIA. (mm)	Box Size (mm)	Q'TY/Box (PCS)	CARTON SIZE (mm)	Q'TY/CARTON (PCS)
TT	1500	330	335X335X32	1500	360X350X360	15000

Ordering Information :

Part Number	Case	Packaging
RTT410	TT	1500pcs / Tape & Reel

Marking Information :



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