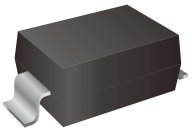
领晨科技
LEADING-TECH

LTE2AW THRU LTE2JW

Surface Mount Superfast Recovery Rectifier

Features

- Super fast switching for high efficiency
- Glass passivated chip junction
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case:SMAW
- Terminal:Leads solderable per MIL-STD-750 Method 2026
- Polarity:Color band denotes cathode end
- Mounting Position:Any

Ordering Information

Part Number	Shipping	Reel
LTE2AW THRU LTE2JW	8000PCS Tape&Reel	13 inchs

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter	Symbol	LTE2AW	LTE2BW	LTE2CW	LTE2DW	LTE2EW	LTE2GW	LTE2JW	Unit
	Marking	E2AW	E2BW	E2CW	E2DW	E2EW	E2GW	E2JW	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current at T_L=55℃	$I_{(AV)}$	2							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Maximum instantaneous forward voltage at 2A	V_F	0.95				1.25		1.7	V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125˚C	I_R	5 100							μA
Maximum reverse recovery time (Note1)	T_{RR}	35							ns
Typical Junction Capacitance (Note2)	C_J	40							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	60							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							°C

Note:(1) Reverse recovery condition I_F=0.5A,I_R=1.0A,I_{rr}=0.25A.
(2) Measured at 1MHz and applied reverse voltage of 4.0V D.C.
(3) P.C.B. mounted with 1" x 1"(2.54cm x 2.54cm) copper pad areas.

Ratings and Characteristics Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

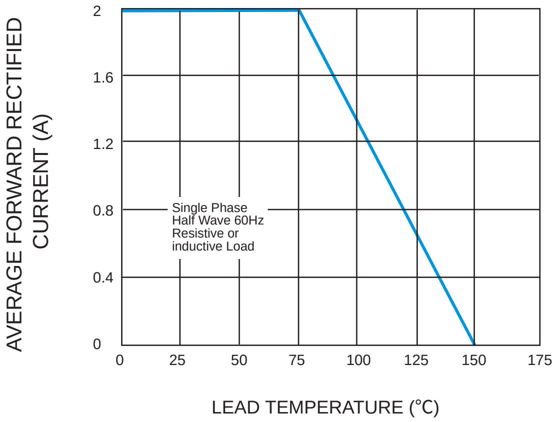


FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

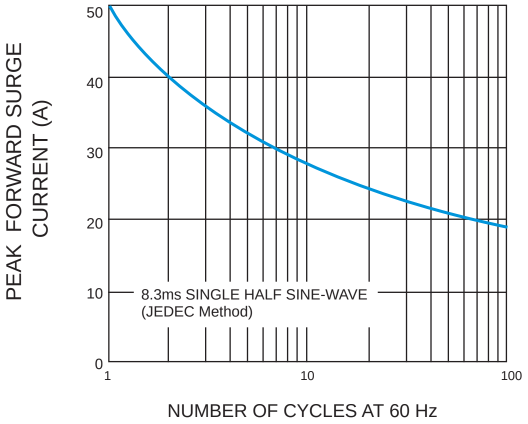


FIG.3 TYPICAL FORWARD CHARACTERISTICS

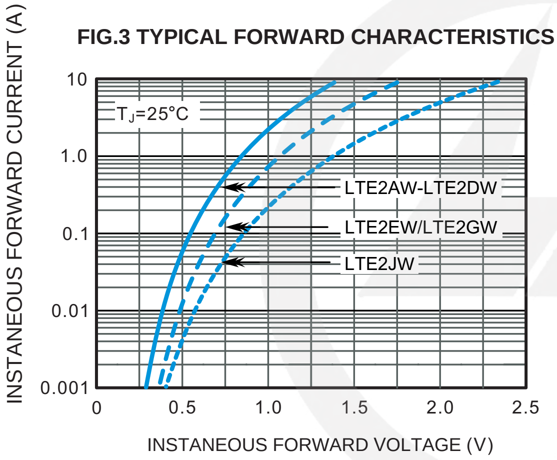


FIG.4 TYPICAL REVERSE CHARACTERISTICS

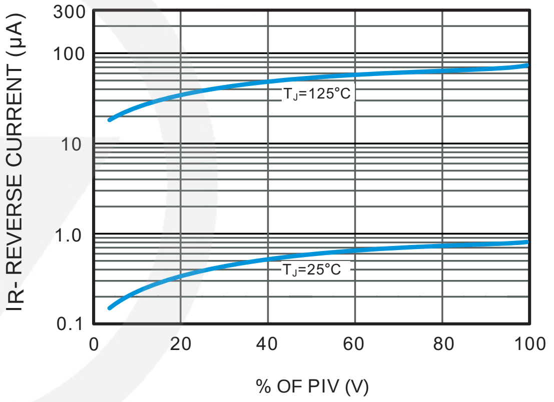
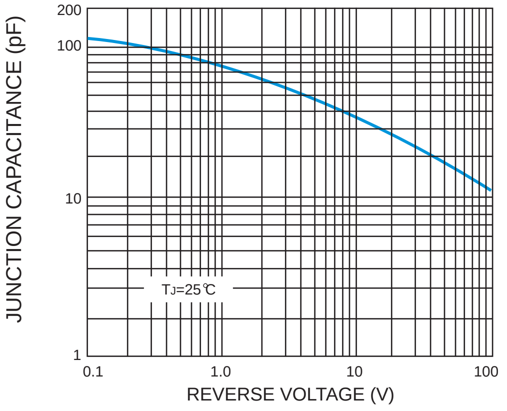
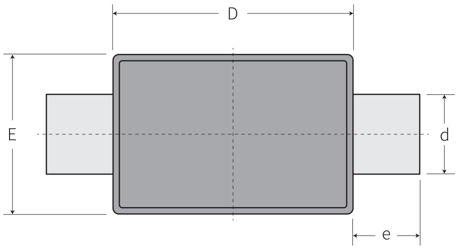


FIG.5 TYPICAL JUNCTION CAPACITANCE

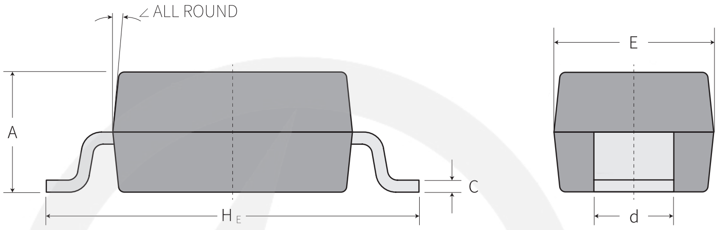


Package Outline

SMAW Unit：mm



Top View



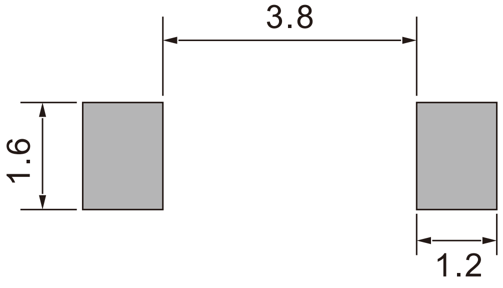
Front view

Side view

UNIT		A	C	D	E	H_E	d	e	∠
mm	max	2.00	0.28	3.80	2.60	5.80	1.40	1.20	6°
	min	1.60	0.10	3.40	2.20	5.40	1.00	0.80	

Suggested Pad Layout

SMAW Unit：mm

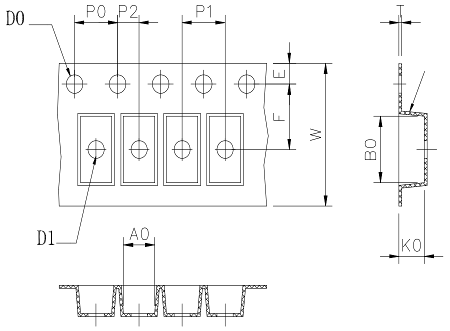


Note:

1. Controlling dimension:in millimeters.
2. General tolerance:±0.05mm
3. The pad layout is for reference purpose only.

Carrier Tape Dimensions

Unit：mm

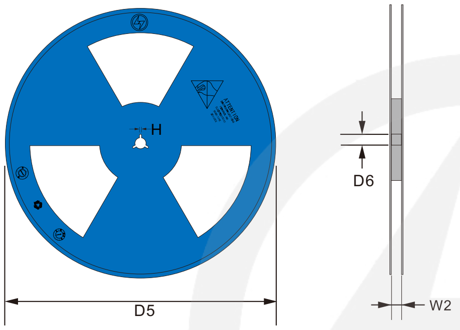


Symbol	Spec	Symbol	Spec
W	12.00±0.10	P1	4.00±0.10
E	1.75±0.10	P2	2.00±0.05
F	5.50±0.05	T	0.25±0.02
D0	1.55±0.05	A0	2.60±0.10
D1	1.50±0.10	B0	5.70±0.10
P0	4.00±0.10	K0	2.00±0.05

Reel Dimensions

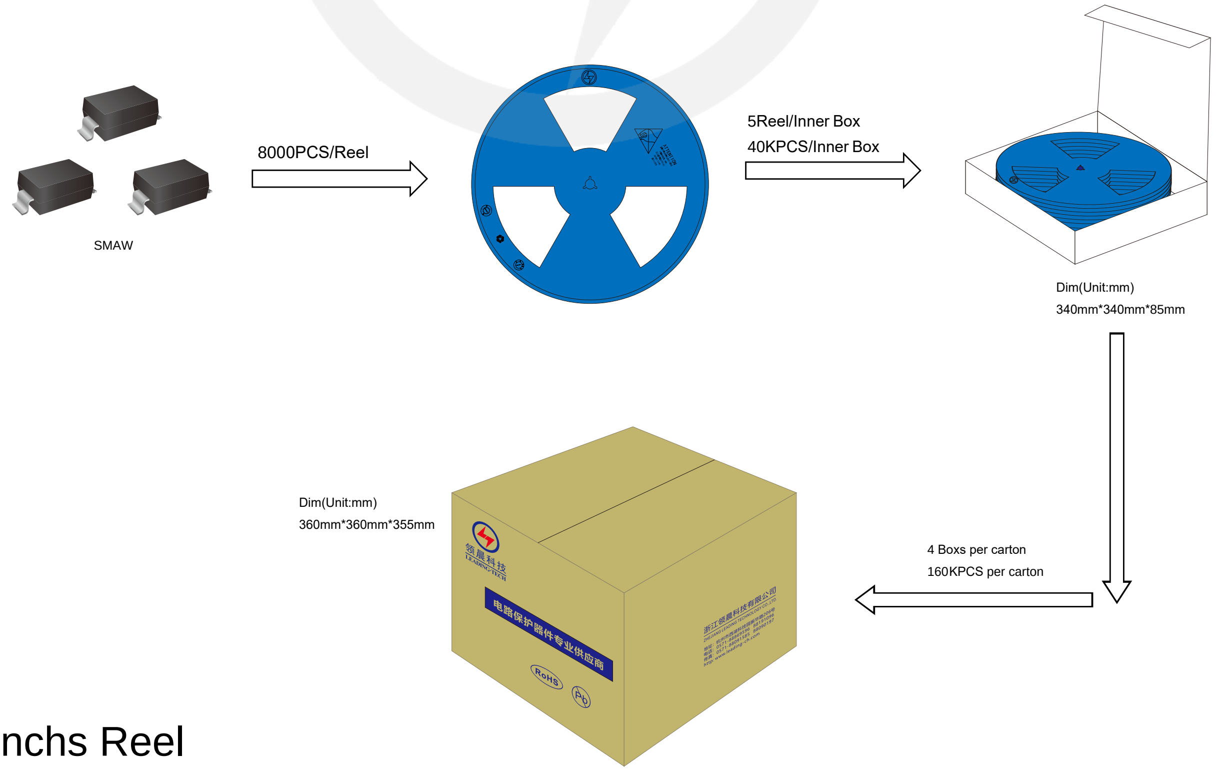
Unit：mm

13” Reel



D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±0.5
Quantity: 8000PCS	

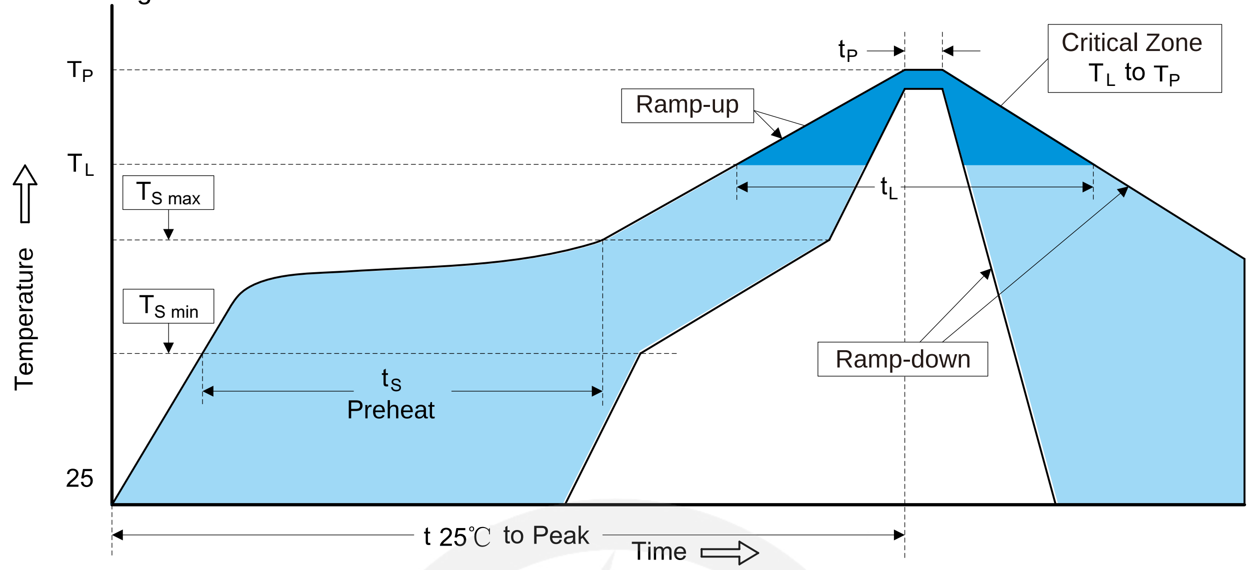
Packaging



13 inchs Reel

Recommended Soldering Conditons

Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3℃/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_S)	 150℃ 200℃ 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	 3℃/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	 217℃ 60-150 seconds
Peak Temperature (T_P)	260℃
Time within 5℃ of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2023.11.30	2023.11.30	1.0	New File	/	Ding	
02	2025.06.27	2025.06.27	1.1	Update packaging information	/	Ding	