

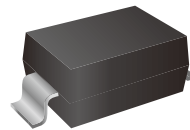


RHE2AW THRU RHE2JW

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
RHE2AW THR RHE2JW	8000PCS Tape&Reel	13 inches

Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	RHE2AW				RHE2EW	RHE2GW	RHE2JW	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°C	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°C 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 _{θJA}	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

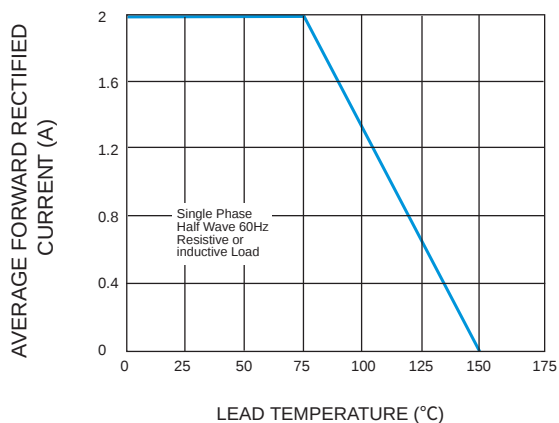


FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

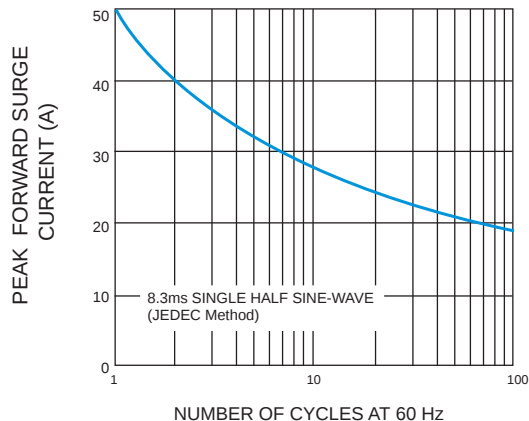


FIG.3 TYPICAL FORWARD CHARACTERISTICS

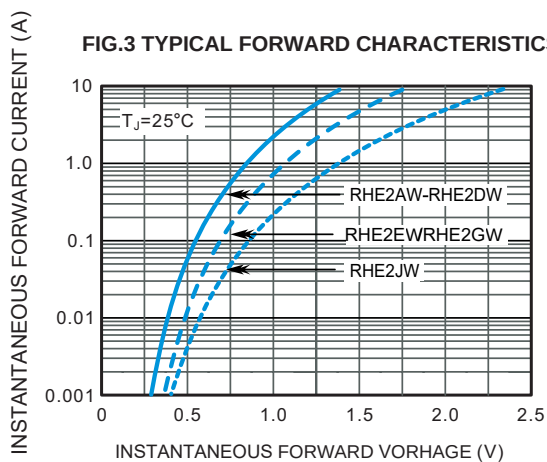


FIG.4 TYPICAL REVERSE CHARACTERISTICS

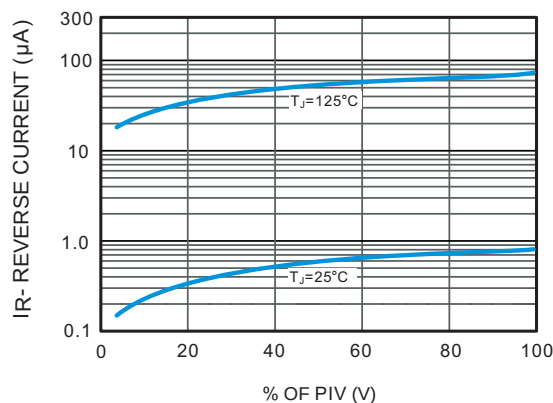
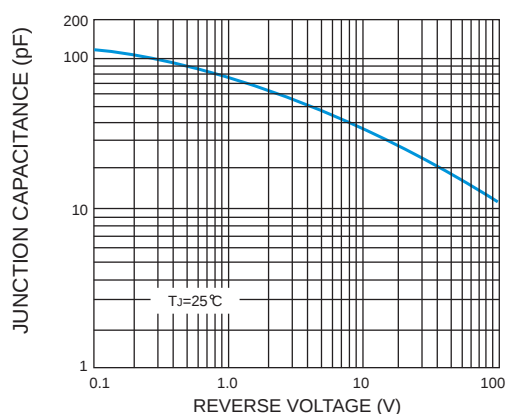
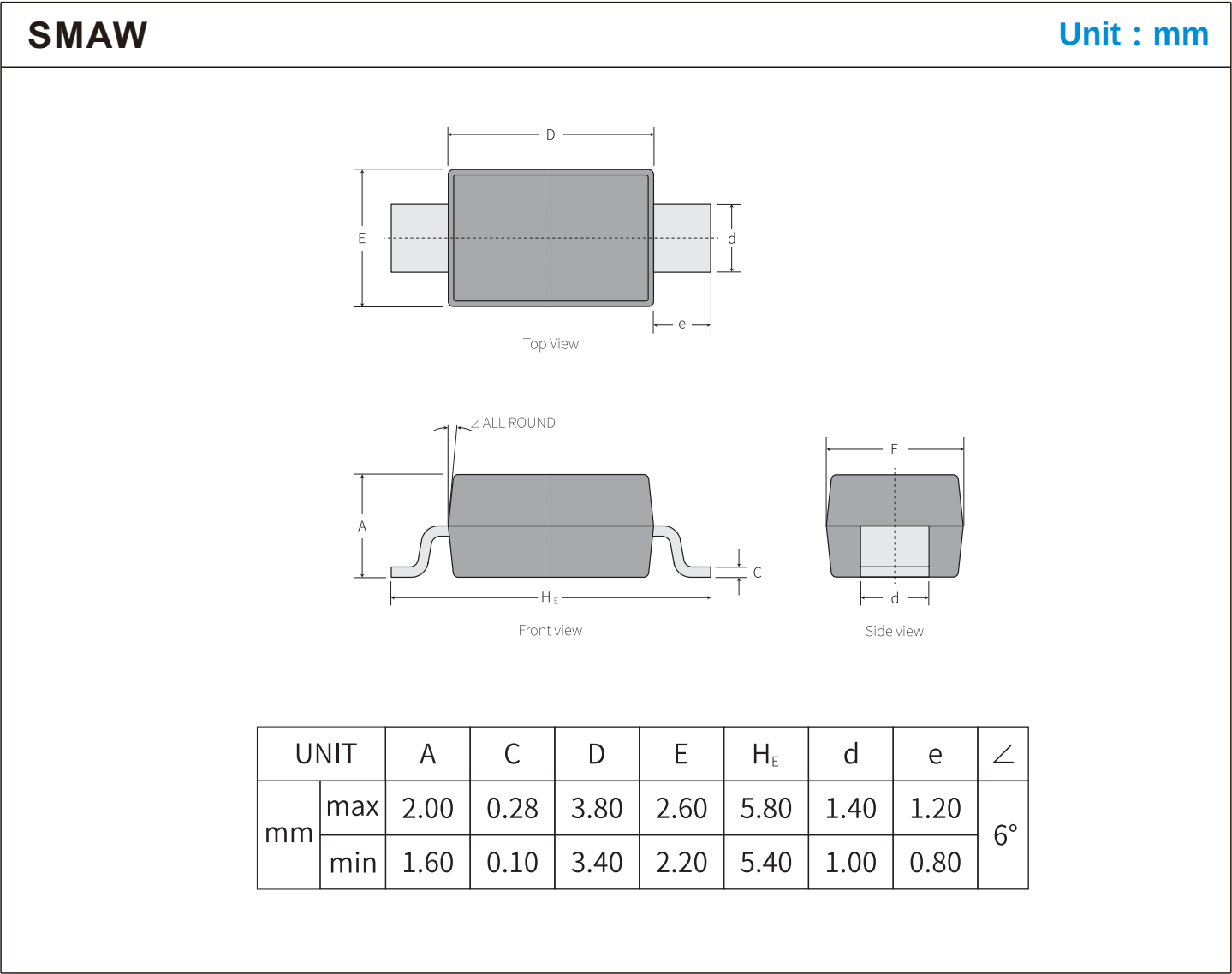


FIG.5 TYPICAL JUNCTION CAPACITANCE

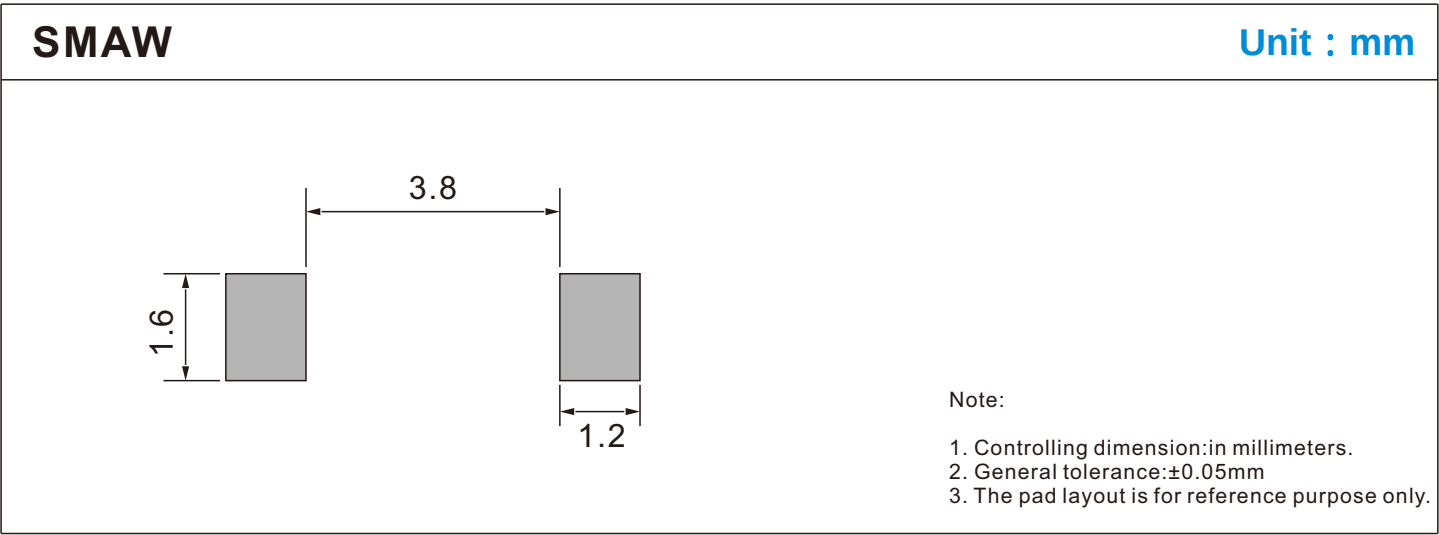




Package Outline



Suggested Pad Layout



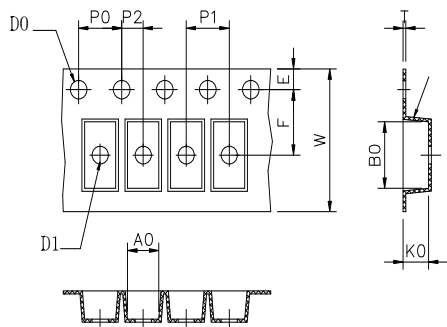


RHE2AW THRU RHE2JW

Surface Mount Superfast Recovery Rectifier

Carrier Tape Dimensions

Unit : mm

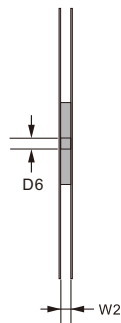
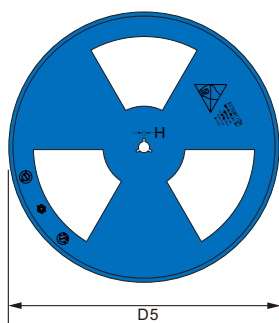


Symbol	Spec	Symbol	Spec
W	12.00±0.10	P1	4.00±0.10
E	1.75±0.10	P2	2.00±0.05
F	5.50±0.05	T	0.25±0.02
D0	1.55±0.05	A0	2.60±0.10
D1	1.50±0.10	B0	5.70±0.10
P0	4.00±0.10	K0	2.00±0.05

Reel Dimensions

Unit : mm

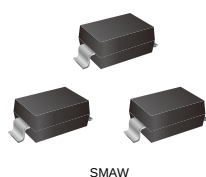
13" Reel



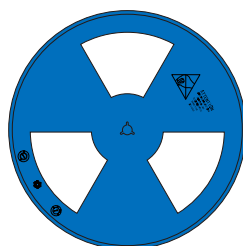
D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±0.5

Quantity: 8000PCS

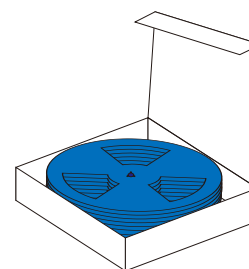
Packaging



8000PCS/Reel

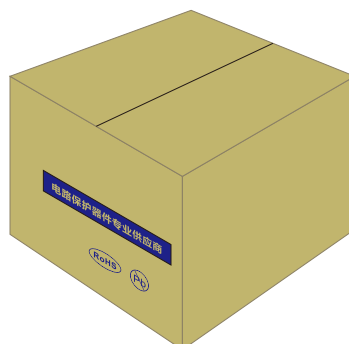


5Reel/Inner Box
40KPCS/Inner Box

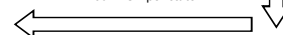


Dim(Unit:mm)
340mm*340mm*85mm

Dim(Unit:mm)
360mm*360mm*355mm



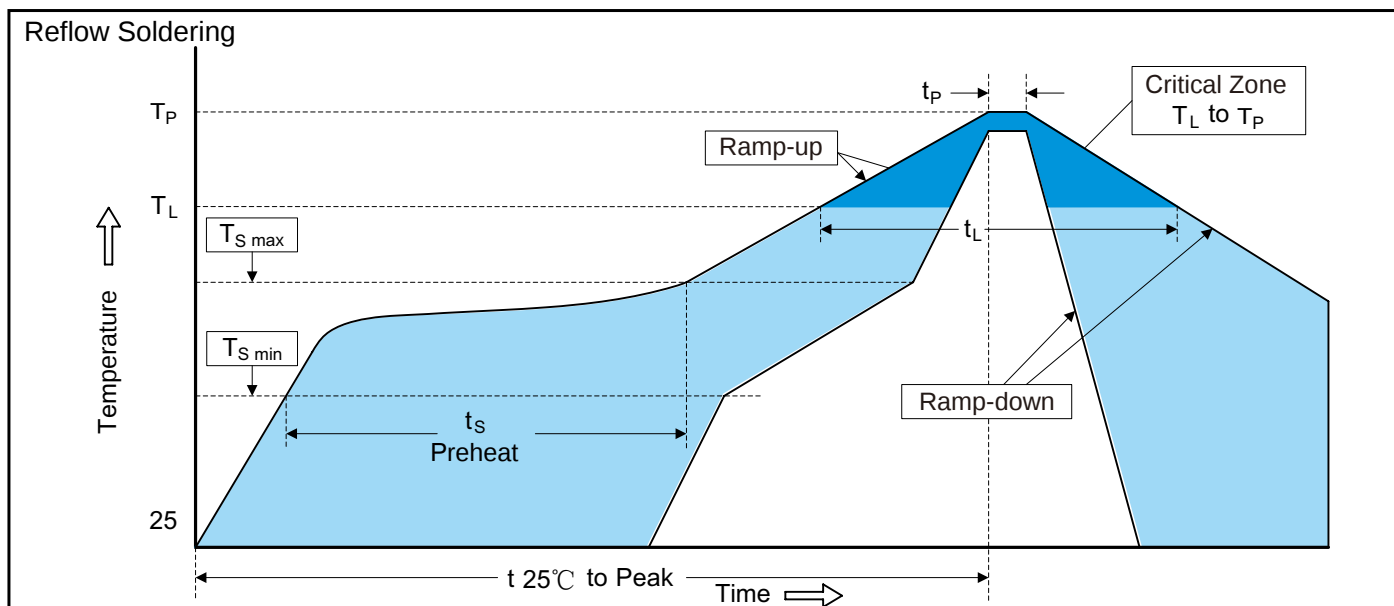
4 Boxes per carton
160KPCS per carton



13 inches Reel



Recommended Soldering Conditions



Recommended Conditions

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