

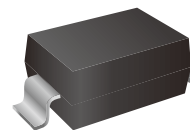


RHR2AW THRU RHR2MW

Surface Mount Fast Recovery Rectifier

Features

- 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
RHR2AW THRU RHR2MW	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	RHR2AW	RHR2BW				RHR2KW	RHR2MW	Unit
	Marking	R2AW	R2BW	R2DW	R2GW	R2JW	R2KW	R2MW	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T _L =90°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 Forward Voltage at 2 A	V _F	1.3							V
Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a =125 °C	I _R	5 100							μA
Typical Junction Capacitance (Note2)	C _J	22							pF
Maximum Reverse Recovery Time (Note1)	T _{RR}	150				250	500		ns
Typical Thermal Resistance (Note3)	R _{θJA}	65							°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 2" x 2" (5.0cm x 5.0cm) copper pad areas.



Characteristics Curves

FIG.1 FORWARD CURRENT DERATING

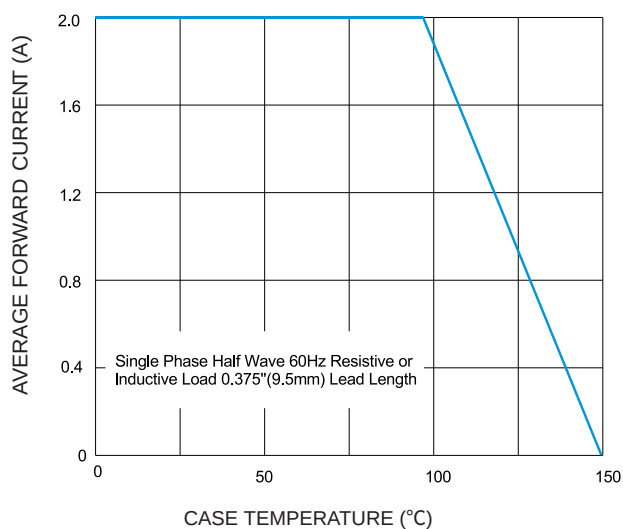


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

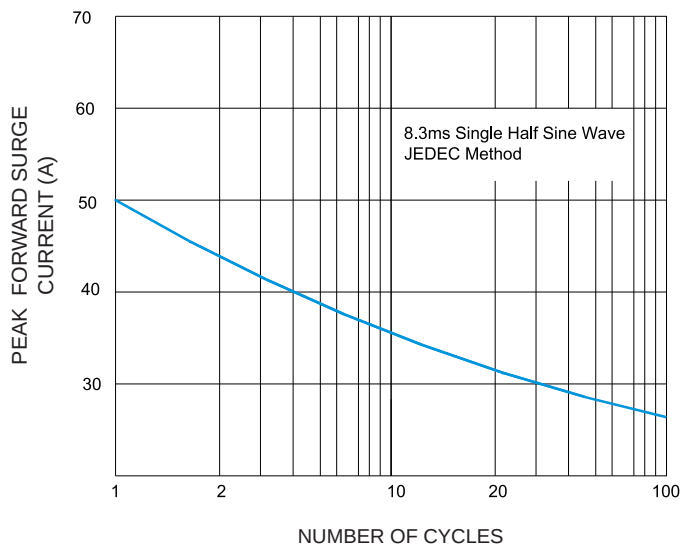


FIG.3 TYPICAL FORWARD CHARACTERISTICS

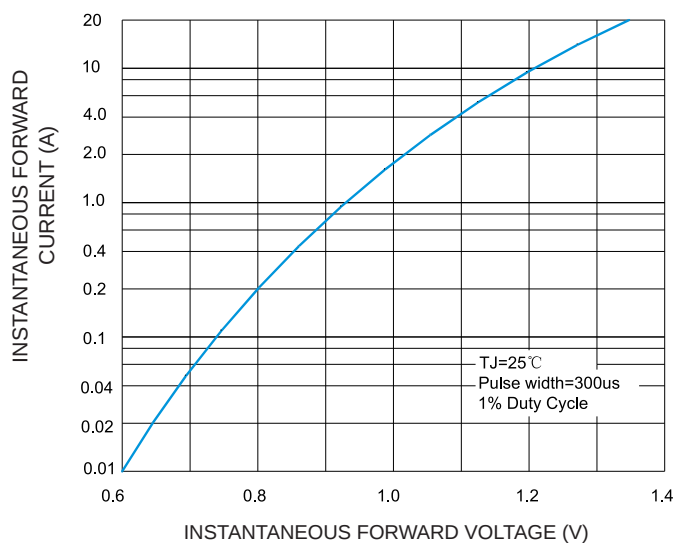
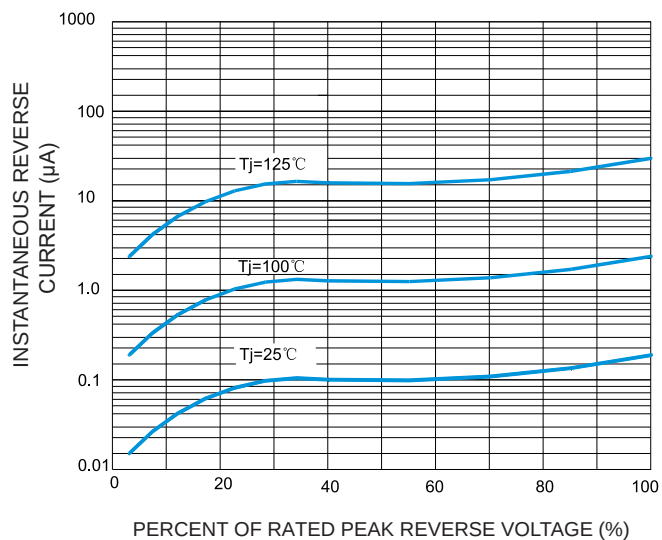
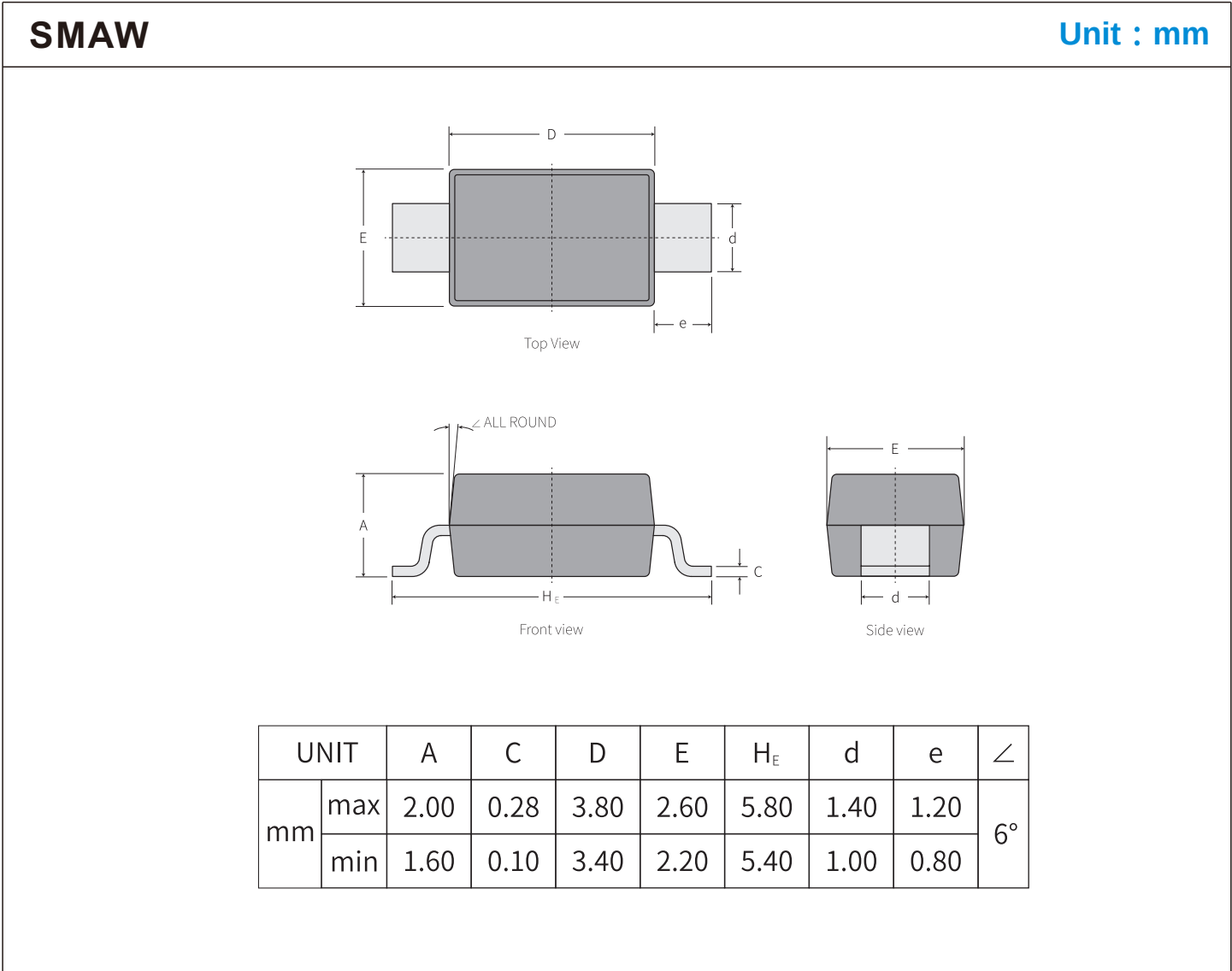


FIG.4 TYPICAL REVERSE CHARACTERISTICS

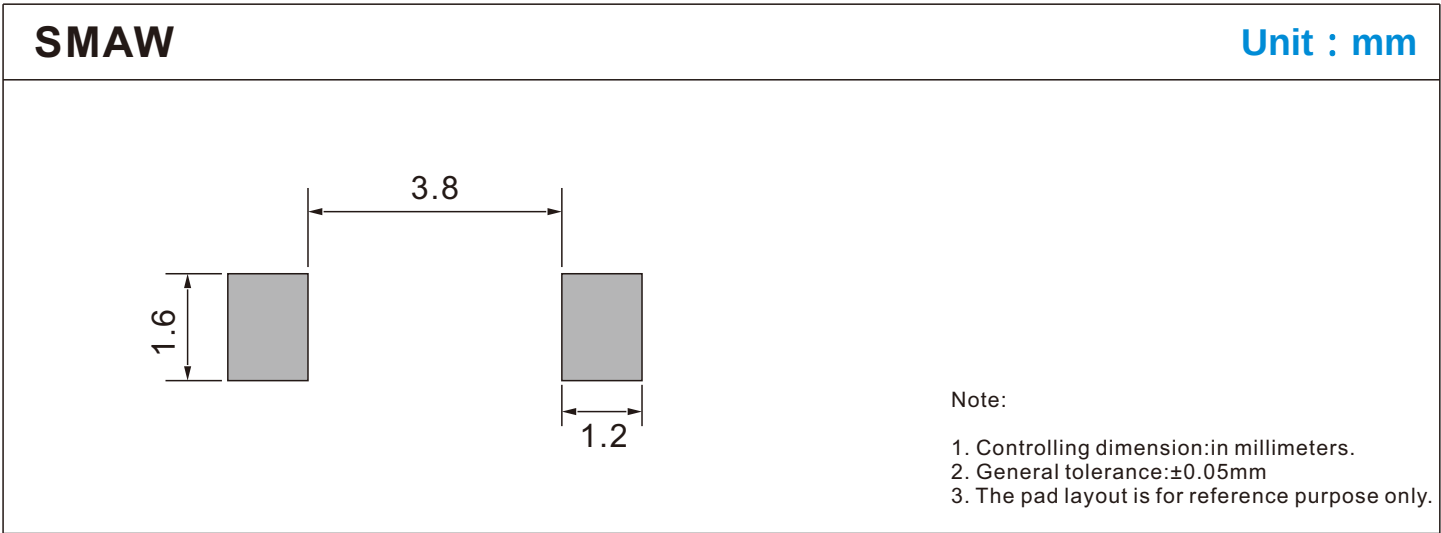




Package Outline



Suggested Pad Layout



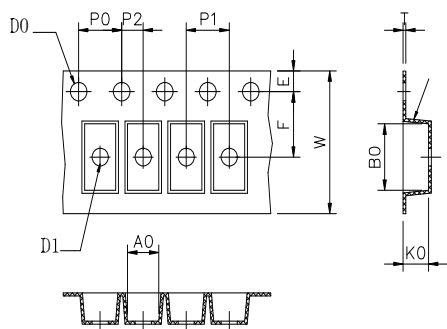


RHR2AW THRU RHR2MW

Surface Mount Fast Recovery Rectifier

Carrier Tape Dimensions

Unit : mm

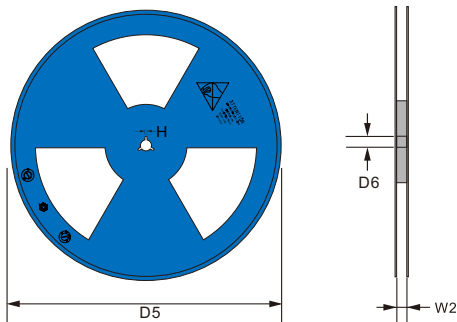


Symbol	Spec	Symbol	Spec
W	12.00±0.10	P1	4.00±0.10
E	1.75±0.10	P2	2.00±0.05
F	5.50±0.05	T	0.25±0.02
D0	1.55±0.05	A0	2.60±0.10
D1	1.50±0.10	B0	5.70±0.10
P0	4.00±0.10	K0	2.00±0.05

Reel Dimensions

Unit : mm

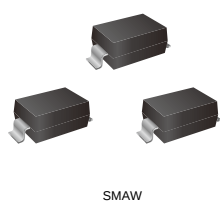
13" Reel



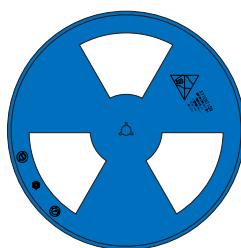
D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±2.0

Quantity: 8000PCS

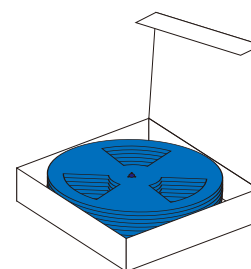
Packaging



8000PCS/Reel

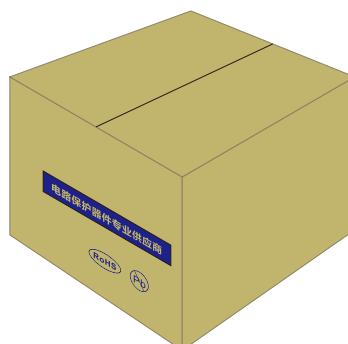


5Reel/Inner Box
40KPCS/Inner Box



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.