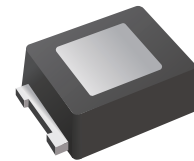




Features

- Top-side Cooling(TSC) Packaging technology
- Compact and Slim Packaging Solutions
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- High forward surge current capability
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: SMHM
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Ordering Information

Part Number	Marking	Shipping	Reel
RH34HML	S34L	15000PCS 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	Symbols	RH34HML	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	3	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100	A
Maximum Instantaneous Forward Voltage at 3 A	V_F	0.45	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	0.2 5	mA
Typical Junction Capacitance ⁽¹⁾	C_j	450	pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$ $R_{\theta JC}$	52 6	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 0.2" X 0.2" (5mm X 5 mm) copper pad areas.



Characteristics Curves

Fig.1 Forward Current Derating Curve

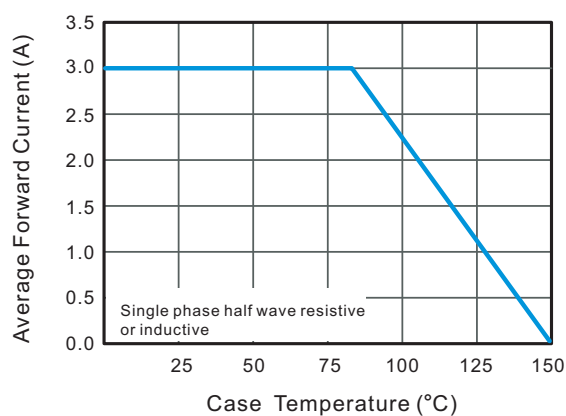


Fig.2 Typical Reverse Characteristics

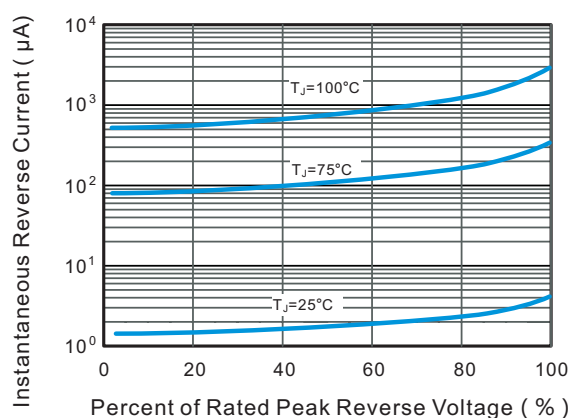


Fig.3 Typical Forward Characteristic

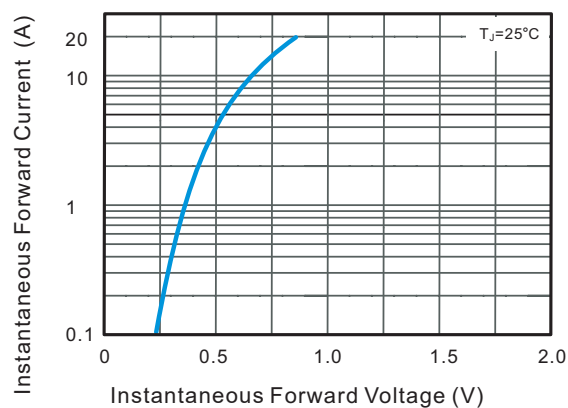


Fig.4 Typical Junction Capacitance

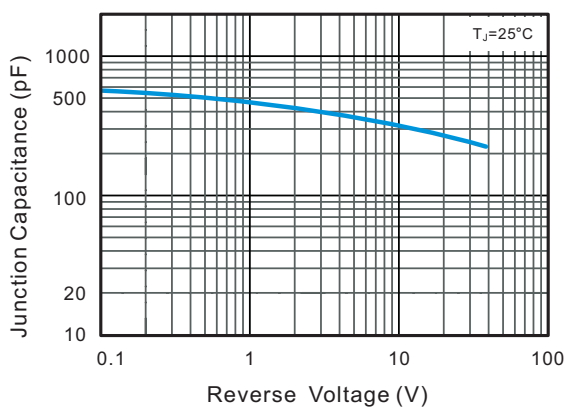
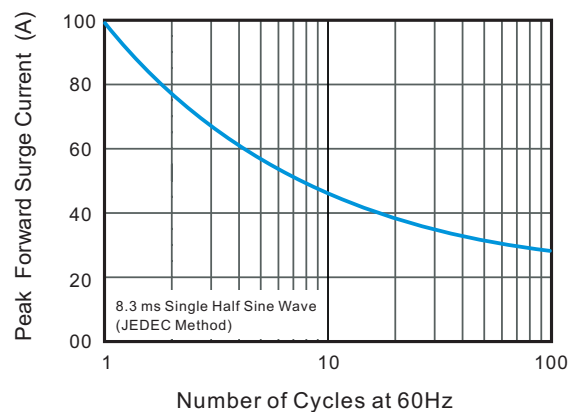


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



**SMHM**

Technical drawing of a square flange with a central hole, showing three views: Top View, Bottom View, and Front view.

- Top View:** Shows the square flange with a central square hole. Dimensions include:
 - D : Overall width of the flange.
 - E : Overall height of the flange.
 - f : Width of the central hole.
 - e : Height of the central hole.
- Bottom View:** Shows the underside of the flange. Dimensions include:
 - d : Width of the central hole.
 - h : Thickness of the flange.
- Front view:** Shows the side profile of the flange. Dimensions include:
 - A : Height of the flange.
 - H_E : Overall width of the flange.
 - C : Thickness of the flange.
 - $\angle$ ALL ROUND: Indication of rounded corners.

UNIT		A	C	D	E	H _E	d	e	f	h	∠
mm	max	0.99	0.25	3.60	3.00	4.30	2.10	2.10	2.00	0.70	6°
	min	0.83	0.15	3.20	2.60	3.70	1.90	1.90	1.78	0.50	

SMHM

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



Carrier Tape Dimensions

Unit : mm

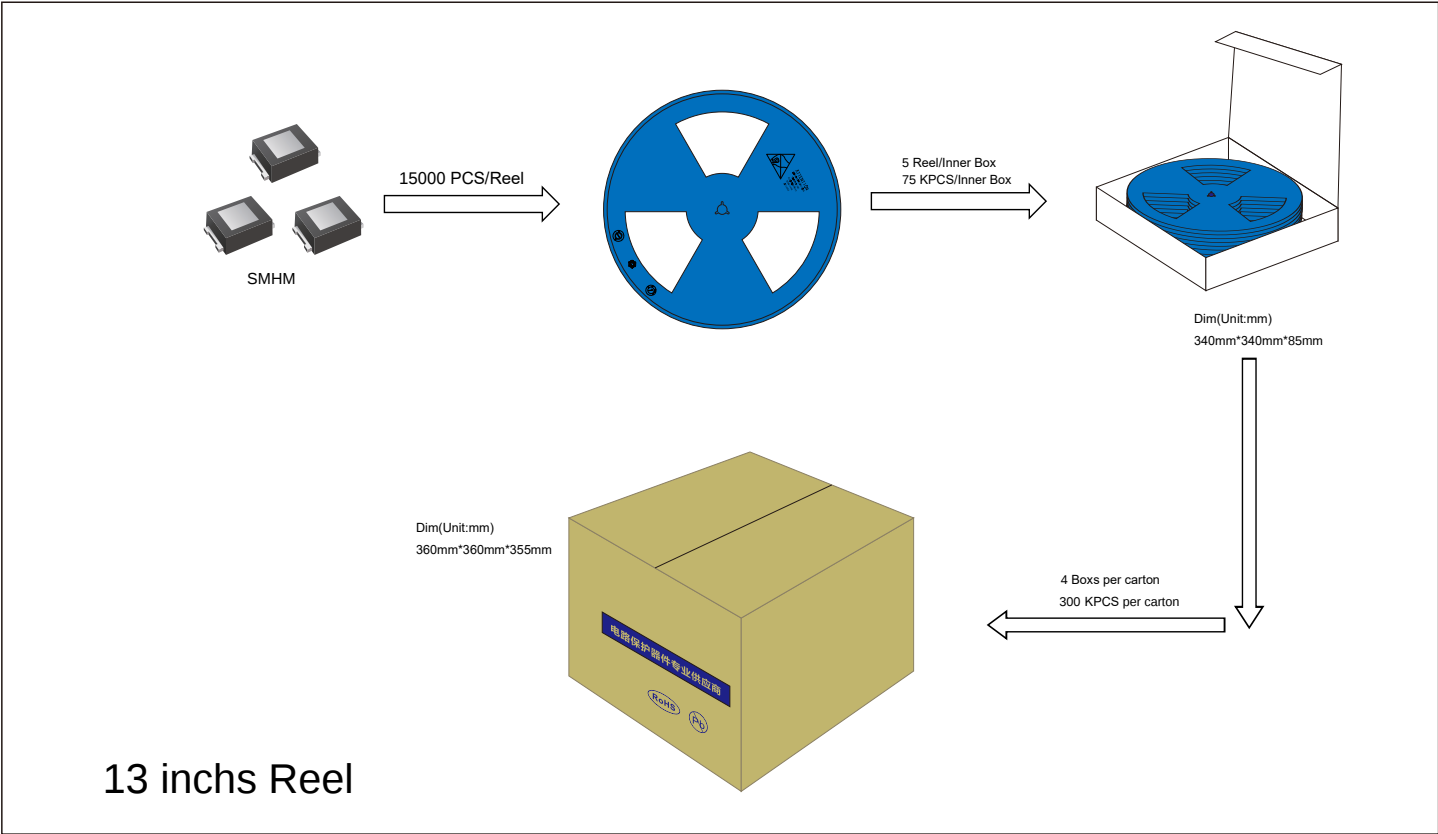
Symbol	Spec	Symbol	Spec
W	12.0±0.10	P2	2.00±0.10
E	1.75±0.10	t	0.25±0.03
F	5.50±0.10	t1	0.05+
D0	1.55±0.10	A0	3.05±0.10
D1	1.50±0.10	B0	4.15±0.10
P0	4.00±0.10	K0	1.15±0.10
P1	4.00±0.10		

Reel Dimensions

Unit : mm

13" Reel	D5	Φ330.0±5.0
	D6	Φ13.5±0.5
	H	2.5±1.0
	W2	12±2.0
	Quantity: 15000PCS	

Packaging





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 ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 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.