

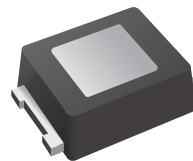


Features

- Top-side Cooling(TSC) Packaging technology
- Compact and Slim Packaging Solutions
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Meets MSL level 1, per J-STD-020
- Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- Case: SOD-123FH
- Terminal: Leads solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position:Any



Ordering Information

Part Number	Marking	Shipping	Reel
RHGA7S	A7	15000PCS Tape&Reel	13 inchs

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	RHGA7S	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	35.0	A
Maximum instantaneous forward voltage at 1.0A	V_F	1.0	V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	I_R	1.0 50.0	μA
Typical junction capacitance (Note1)	C_J	15.0	pF
Typical thermal resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$	61 7	$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

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

(2) P.C.B. mounted with 0.08" × 0.08"(2mmx2mm) copper pad areas.



Characteristics Curves

Fig.1 Forward Current Derating Curve

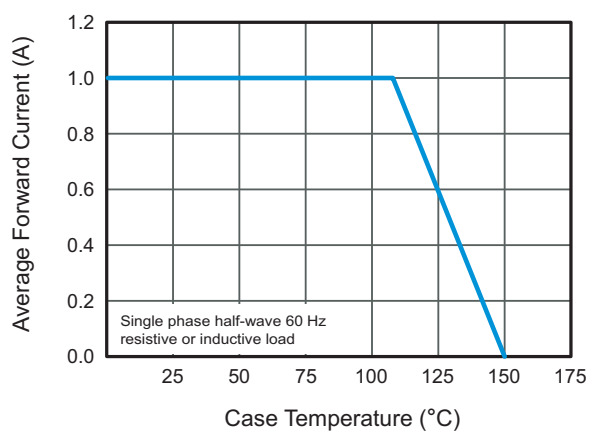


Fig.2 Typical Instantaneous Reverse Characteristics

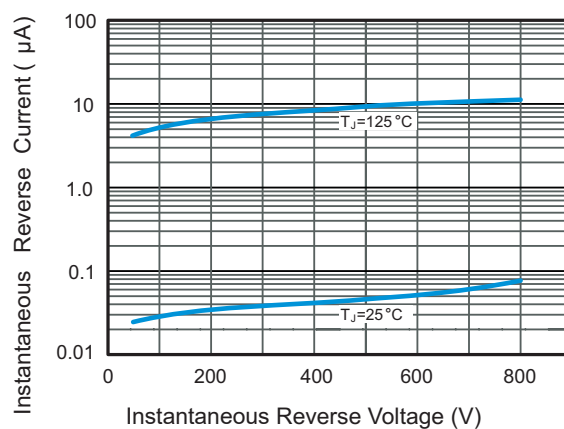


Fig.3 Typical Forward Characteristic

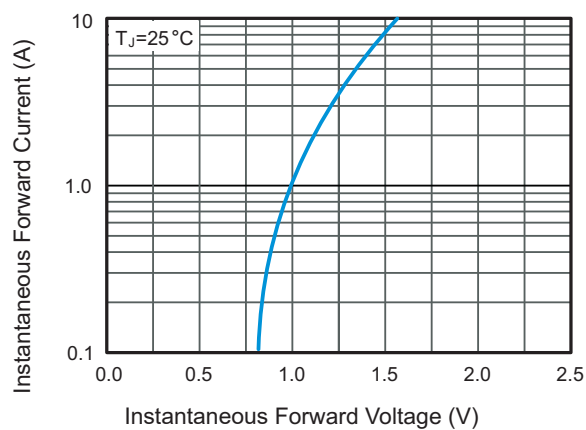


Fig.4 Typical Junction Capacitance

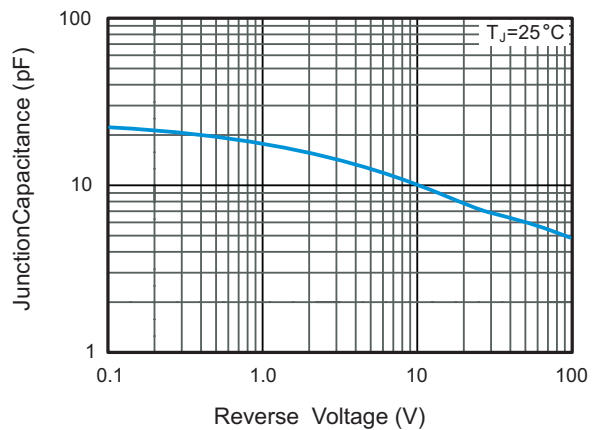
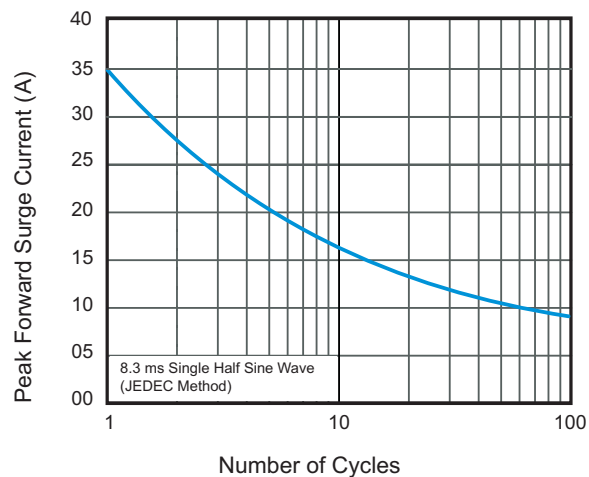


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





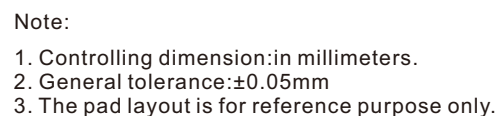
SOD-123FH

Unit : mm



SOD-123FH

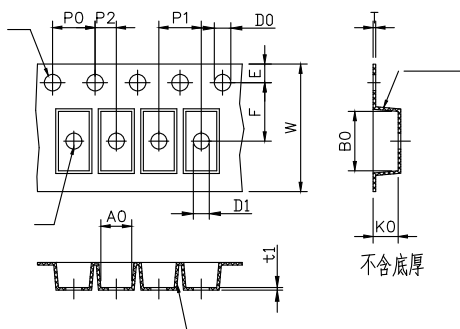
Unit : mm





Carrier Tape Dimensions

Unit : mm

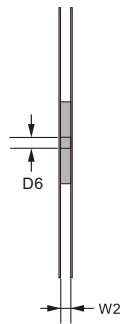
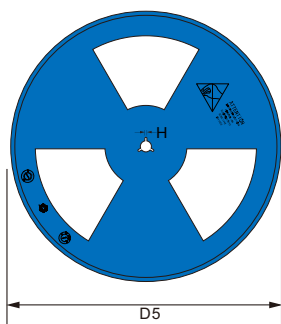


Symbol	Spec	Symbol	Spec
W	8.00±0.10	P2	2.00±0.10
E	1.75±0.10	t	0.22±0.02
F	3.50±0.10	t1	0.05+
D0	1.55±0.10	A0	2.15±0.10
D1	1.10±0.10	B0	3.40±0.10
P0	4.00±0.10	K0	1.15±0.10
P1	4.00±0.10		

Reel Dimensions

Unit : mm

13" Reel



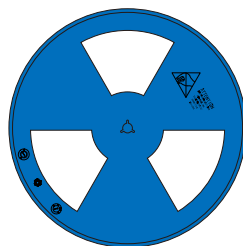
D5	Φ330.0±5.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	8.0±2.0
Quantity: 15000PCS	

Packaging

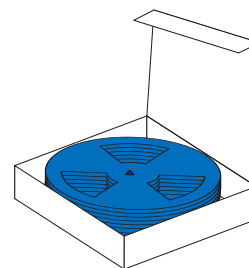


SOD-123FH

15000 PCS/Reel

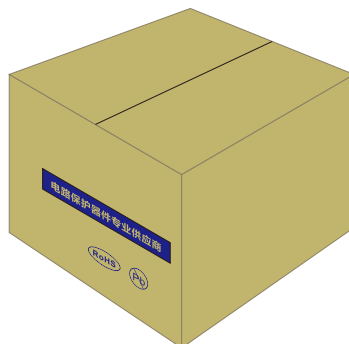


5 Reel/Inner Box
75K PCS/Inner Box



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

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

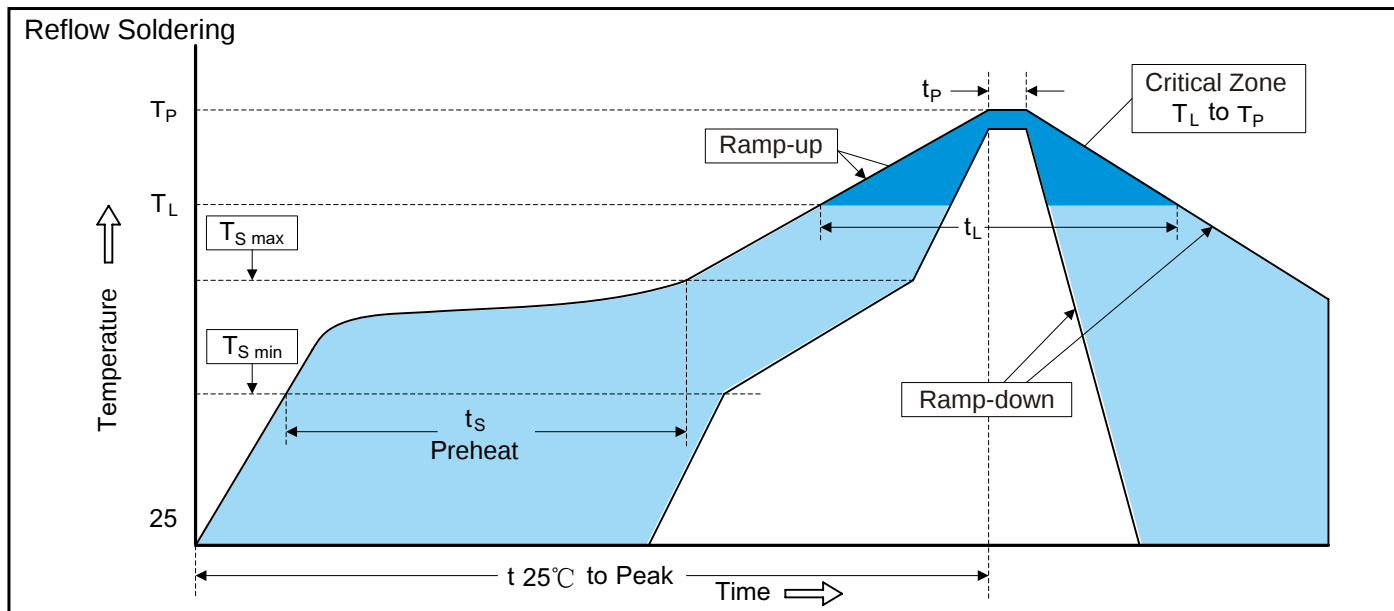


4 Boxes per carton
300K PCS per carton

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.