

RECOMMENDABLE CONDITION OF SOLDERING

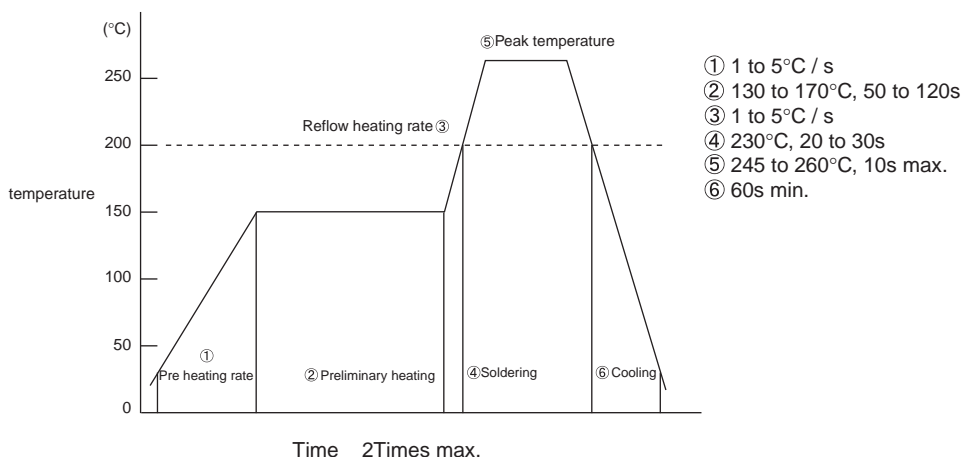
SURFACE MOUNTED DEVICE

CONDITION OF SOLDERING
FOR SURFACE MOUNTED DEVICE
(DISCRETE DIODES)
LEAD FREE (Sn-3Ag-0.5Cu) VERSION

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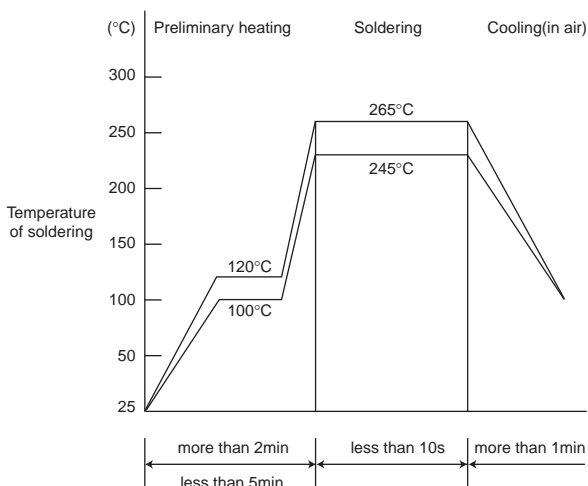
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● Recommended condition of reflow soldering



Recommended peak temperature is over 245 C. If peak temperature is below 245 C, you may adjust the following parameters ; Time length of peak temperature (longer), Time length of soldering (longer), Thickness of solder paste (thicker).

● Flow soldering

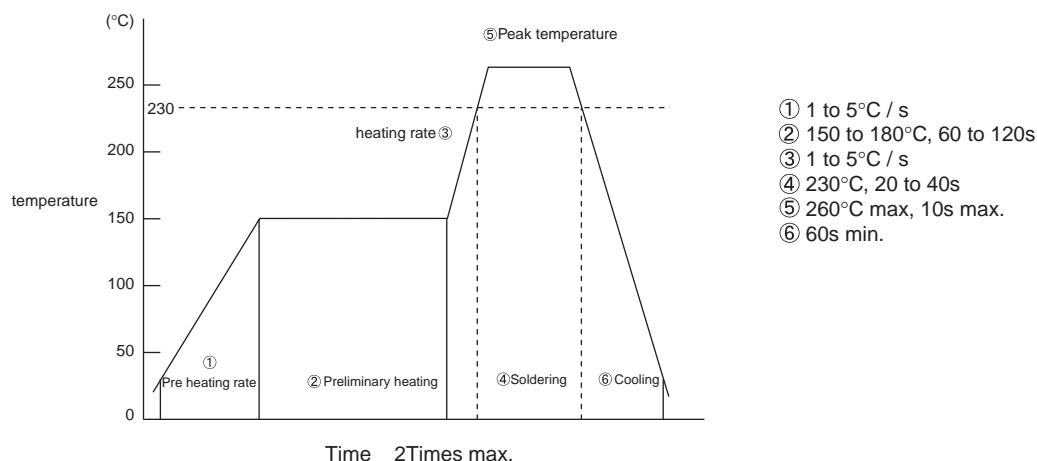


● Condition of hand soldering

Temperature refer to right table
 Time less than 3s
 Times one time

<p>Temperature differ from PKG</p> <p>PKG less than 400°C SMD3, SMD4, SMD5, SMD6, SSD3, UMD2(expect for 1SS355, 1SS380, 1SS376, UDZ S series) UMD3, UMD3F, UMD4, UMD5, UMD6, EMD2, EMD3, EMD3F, EMD4, EMD5, EMD6, VMN2, VMD2, VMD3, GMD2 HMD8, HMD12, LLDS, LLDL</p> <p>PKG less than 350°C UMD2(1SS355, 1SS380, 1SS376, UDZ S series) KMD2, TUMD2, TUMD5, TSMD5, TSMD6 TSMD8, PMDU, PMDS, PMDT, MPD, CPD3, LPDS</p>

● Condition of heat-resistant



● Recommended condition of washing

1. Washing liquid

washing liquid	manufacturers
water	-
ethanol	-
methanol	-
pine alpha ST-100S	ARAKAWA CHEMICAL
clean through 750H	KAO
technocare FRW-1	TOSHIBA TECHNOCARE
mighty solve AH-V	ASAHI GLASS

2. Condition of washing

washing bath		time	temperature	remarks
first bath	ultrasonic bath	less than 60s	room temperature	25 to 28kHz, 15W / L
second bath	immersion bath	less than 60s	room temperature	
third bath	vaper bath *	less than 60s	less than 44.7°C	boiling points differ to washing liquid

* In vaper bath,you can not use ethanol ,methanol and water due to their high boiling points.

unit : mm

Terminal	2pin	Terminal	3pin	Terminal	4pin	Terminal	5pin	Terminal	6pin		
 UMD2	 PMDS	 EMD3	 UMD4	 UMD5	 UMD6	 EMD2	 PMDU	 UMD3	 SMD4	 SMD5	 SMD6
 VMD2	 TUMD2	 SMD3,SSD3	 EMD4	 EMD5	 EMD6	 PMDT	 VMN2	 VMD3	 TSMD5	 TSMD6	
 GMD2				 TUMD5							
 HSMD8	 HSMD12	 TSMD8									
 LPDS	 MPD	 CPD3									

*Copper plate area dimensions above are reference dimensions with being soldered with conditions below.

PCB FR-4,t=1.6mm
 Solder paste M705-GRN360-K2V
 Paste thickness 150mm *GMD2, HMD12 only 80μm
 Reflow soldering max. 250°C,10s

Solderability will depend on the soldering conditions,solder paste,paste thickness,soldering pad size, mount layout and so on.
 So, it is difficult for ROHM to refer to customer's soldering conditions.
 Optimize footprint dimensions to the board design and soldering conditions.

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