

RECOMMENDABLE CONDITION OF SOLDERING

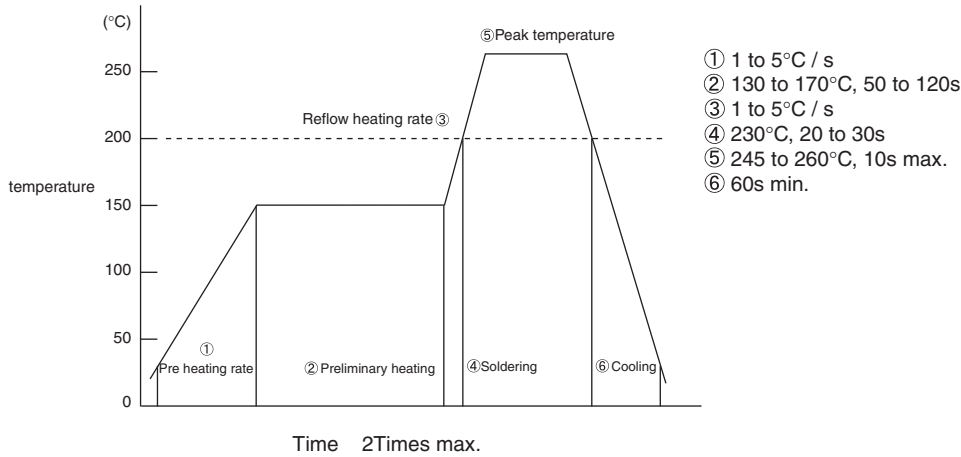
SURFACE MOUNTED DEVICE

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

CONTENTS

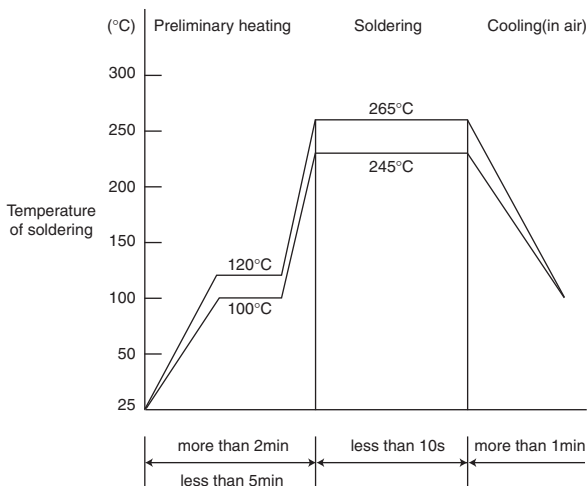
RECOMMENDABLE CONDITION OF REFLOW SOLDERING	2 / 4
RECOMMENDABLE CONDITION OF FLOW SOLDERING	2 / 4
RECOMMENDABLE CONDITION OF HAND SOLDERING	2 / 4
CONDITION OF HEAT-RESISTANT	3 / 4
RECOMMENDABLE CONDITION OF WASHING	3 / 4
REFERENCE COPPER PLATE AREA DIMENSION ON PRINTED CIRCUIT BOARD	4 / 4

● 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).

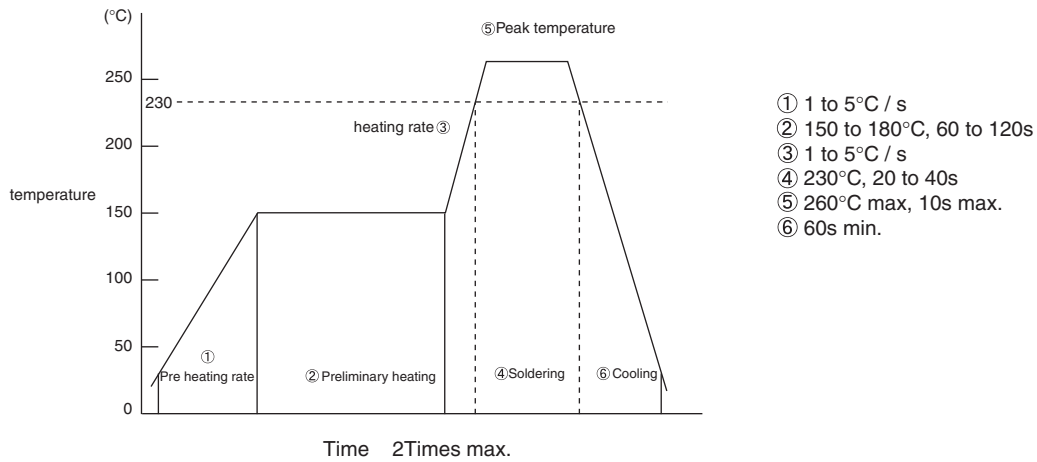
● Condition of hand soldering



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

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

● 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					

Terminal	8pin	Terminal	12pin	Terminal	8pin
 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.

Notes

No copying or reproduction of this document, in part or in whole, is permitted without the consent of ROHM Co.,Ltd.

The content specified herein is subject to change for improvement without notice.

The content specified herein is for the purpose of introducing ROHM's products (hereinafter "Products"). If you wish to use any such Product, please be sure to refer to the specifications, which can be obtained from ROHM upon request.

Examples of application circuits, circuit constants and any other information contained herein illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.

Great care was taken in ensuring the accuracy of the information specified in this document. However, should you incur any damage arising from any inaccuracy or misprint of such information, ROHM shall bear no responsibility for such damage.

The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM and other parties. ROHM shall bear no responsibility whatsoever for any dispute arising from the use of such technical information.

The Products specified in this document are intended to be used with general-use electronic equipment or devices (such as audio visual equipment, office-automation equipment, communication devices, electronic appliances and amusement devices).

The Products specified in this document are not designed to be radiation tolerant.

While ROHM always makes efforts to enhance the quality and reliability of its Products, a Product may fail or malfunction for a variety of reasons.

Please be sure to implement in your equipment using the Products safety measures to guard against the possibility of physical injury, fire or any other damage caused in the event of the failure of any Product, such as derating, redundancy, fire control and fail-safe designs. ROHM shall bear no responsibility whatsoever for your use of any Product outside of the prescribed scope or not in accordance with the instruction manual.

The Products are not designed or manufactured to be used with any equipment, device or system which requires an extremely high level of reliability the failure or malfunction of which may result in a direct threat to human life or create a risk of human injury (such as a medical instrument, transportation equipment, aerospace machinery, nuclear-reactor controller, fuel-controller or other safety device). ROHM shall bear no responsibility in any way for use of any of the Products for the above special purposes. If a Product is intended to be used for any such special purpose, please contact a ROHM sales representative before purchasing.

If you intend to export or ship overseas any Product or technology specified herein that may be controlled under the Foreign Exchange and the Foreign Trade Law, you will be required to obtain a license or permit under the Law.



Thank you for your accessing to ROHM product informations.
More detail product informations and catalogs are available, please contact us.

ROHM Customer Support System

<http://www.rohm.com/contact/>