

RECOMMENDABLE CONDITION OF SOLDERING

SURFACE MOUNTED DEVICE

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

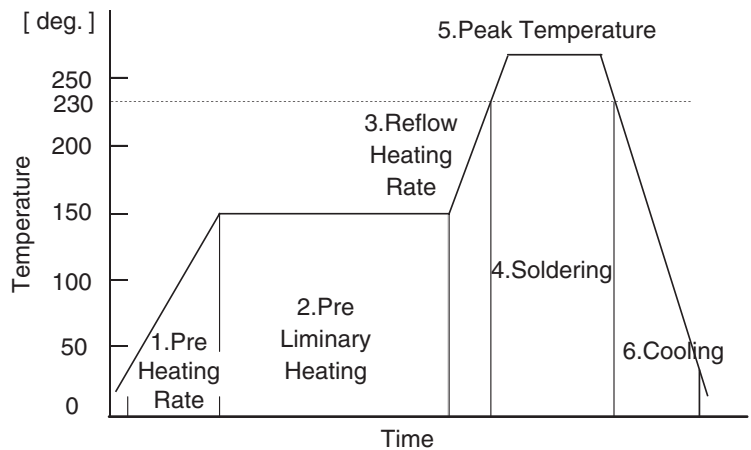
CONTENTS

RECOMMENDABLE CONDITION OF REFLOW SOLDERING	2 / 5
RECOMMENDABLE CONDITION OF FLOW SOLDERING	2 / 5
RECOMMENDABLE CONDITION OF HAND SOLDERING	2 / 5
CONDITION OF HEAT-RESISTANT	3 / 5
RECOMMENDABLE CONDITION OF WASHING	3 / 5
REFERENCE COPPER PLATE AREA DIMENSION ON PRINTED CIRCUIT BOARD	4 / 5 , 5 / 5

RECOMMENDABLE CONDITION OF REFLOW , FLOW AND HAND SOLDERING

RECOMMENDABLE CONDITION OF REFLOW SOLDERING

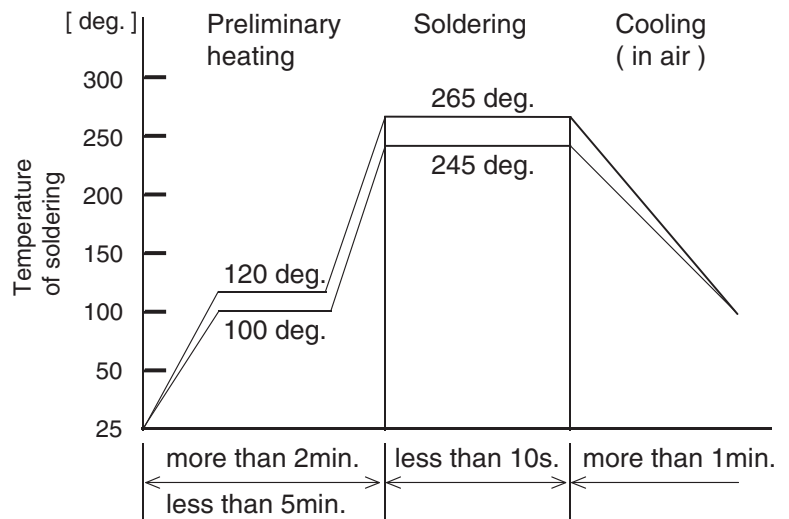
- 1.Pre Heating Rate : 1 to 5 deg./s
- 2.Pre Liminary Heating : 130 to 170 deg. , 50 to 120s
- 3.Reflow Heating Rate : 1 to 5 deg./s
- 4.Soldering : 230 deg. , 20 to 30s
- 5.Peak Temperature : 245 to 260 deg. , 10s Max.
- 6.Cooling : 60s Min.
- 7.Number of Reflow Soldering : 2 times Max.



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

RECOMMENDABLE CONDITION OF FLOW SOLDERING

- Soldering Temperature : 245 to 265 deg.
- Soldering Time : 10s Max.
- Number of Flow Soldering : 1 times Max.



RECOMMENDABLE CONDITION OF HAND SOLDERING

- Temperature : Refer to Right Table
- Time : 3s Max.
- Number of Hand Soldering : One time

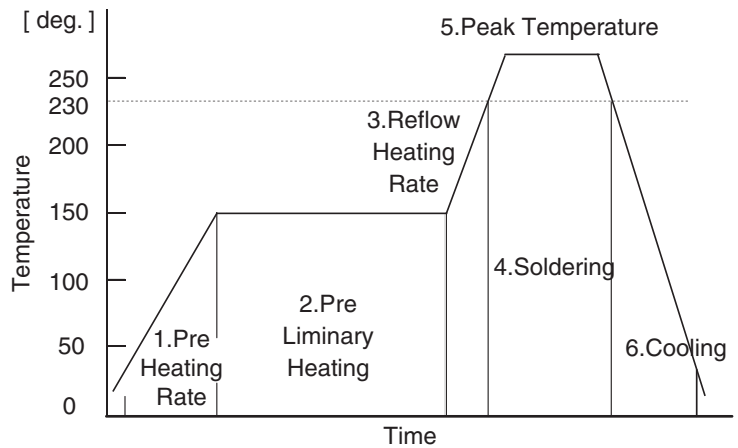
Temperature differ from Package
 PKG less than 400 deg.
SMT3 (expect for 2SB1051K), SMT5 , SMT6 , UMT3 , UMT3F , UMT5 , UMT6 , EMT3 , EMT3F , EMT5 , EMT6 , SST3 , VMT3 , VMT6 , VMN3 , WEMT6

PKG less than 350 deg.
MPT3 , MPT6 , CPT3 , TCPT3 , LPTS , LPTL , PSD , SOP8 , PSOP8 , TSMT3 , TSMT5 , TSMT6 , TSMT8 , TSST8 , SMT3 (2SB1051K) , TUMT3 , TUMT5 , TUMT6 , HSMT8

CONDITION OF HEAT - RESISTANT

■CONDITION OF HEAT-RESISTANT

- 1.Pre Heating Rate : 1 to 5 deg./s
- 2.Pre Liminary Heating : 150 to 180 deg. , 60 to 120s
- 3.Reflow Heating Rate : 1 to 5 deg./s
- 4.Soldering : 230 deg. , 20 to 40s
- 5.Peak Temperature : 260 deg. Max. , 10s Max.
- 6.Cooling : 60s Min.
- 7.Number of Reflow Soldering : 2 times Max.



CONDITION OF WASHING

■RECOMMENDABLE CONDITION OF WASHING

1.WASHING LIQUID

washing liquid	maker
water	-
ethanol	-
methanol	-
pine alpha ST-100S	ARAKAWA CHEMICAL
clean through 750H	KAO
technocare FRW-1	MOMENTIVE performance materials
mighty solve AH-V	ASAHI GLASS

2.CONDITION OF WASHING

washing bath	time	temperature	remarks
first bath ultrasonic bath	less than 60 s	room temperature	25 to 28kHz , 15W / L
second bath immersion bath	less than 60 s	room temperature	
third bath vaper bath *	less than 60 s	less than 44.7 deg.	the boiling point varies from washing liquid

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

REFERENCE COPPER PLATE AREA DIMENSION ON PRINTED CIRCUIT BOARD

(UNIT) : mm

PACKAGE(MOLD SIZE)					
VMN3	0.8 × 0.6	VMT3	1.2 × 0.8	VMT6	1.2 × 0.92
EMT3 / EMT3F	1.6 × 0.8	EMT5	1.6 × 1.2	EMT6	1.6 × 1.2
UMT3 / UMT3F	2.0 × 1.25	UMT5	2.0 × 1.25	UMT6	2.0 × 1.25
SMT3	2.9 × 1.6	SMT5	2.9 × 1.6	SMT6	2.9 × 1.6

REFERENCE COPPER PLATE AREA DIMENSION ON PRINTED CIRCUIT BOARD

(UNIT) : mm

PACKAGE(MOLD SIZE)		
SST3 2.9 × 1.3 	WEMT6 1.6 × 1.3 	/
TUMT3 2.0 × 1.7 	TUMT5 2.0 × 1.7 	
TSMT3 2.9 × 1.6 	TSMT5 2.9 × 1.6 	TSMT6 2.9 × 1.6
TSMT8 3.0 × 2.4 	TSST8 3.0 × 1.9 	HSMT8 3.15 × 3.3

REFERENCE COPPER PLATE AREA DIMENSION ON PRINTED CIRCUIT BOARD

(UNIT) : mm

PACKAGE(MOLD SIZE)			
<p>MPT3 4.5 × 2.5</p>	<p>MPT6 : Single 4.5 × 3.2</p>	<p>MPT6 : Dual 4.5 × 3.2</p>	
<p>SOP8 5.0 × 3.9</p>	<p>PSOP8S 5.0 × 5.0</p>	<p>PSOP8 5.0 × 5.0</p>	
<p>TCPT3 6.6 × 8.3</p>	<p>CPT3 6.5 × 5.5</p>		
<p>PSD 10.1 × 8.8</p>			

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/>