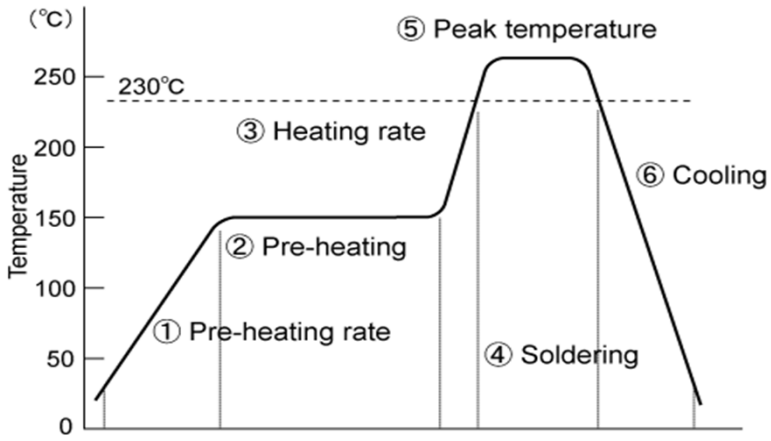
Condition of Soldering

Product	Diode	Package	TUMD2S

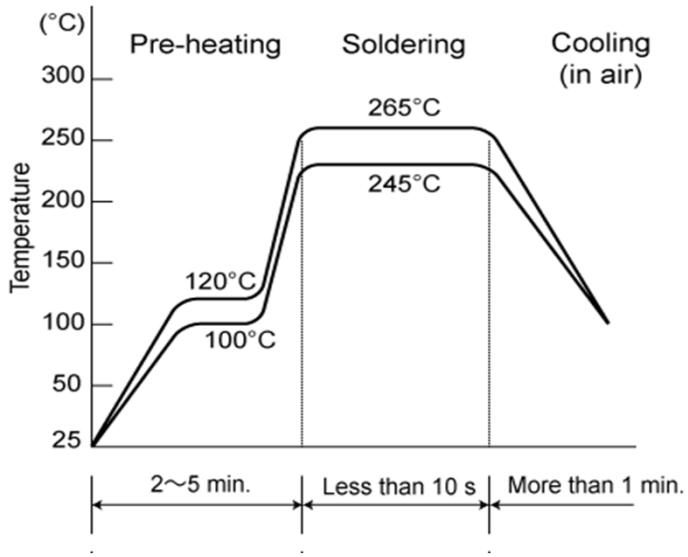
1. Reference Condition of Reflow Soldering



① Pre-Heating Rate	1～5℃/s
② Pre-Heating	130～170℃, 50～120s
③ Heating Rate	1～5℃/s
④ Soldering	Over 230℃, 20～30s
⑤ Peak Temperature	245～260℃, 10s Max.
⑥ Cooling	60s Min.
⑦ Number of Times	2 Times Max.

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

2. Reference Condition of Flow Soldering



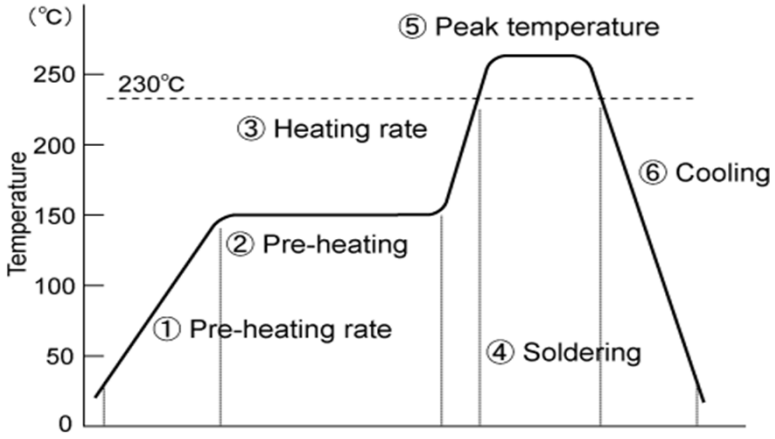
* Number of Times : One Time

3. Reference Condition of Hand Soldering

1) Temperature : 400℃ Max.
2) Duration : Less than 3s
3) Number of Times : One Time

※ We concluded that there is no specific problem in characteristics and reliability under the temperature profile above. However, since the most appropriate temperature profile condition differs depending on the solder paste, we highly recommend you examine whether there is problem in your own condition.

4. Condition of Heat-Resistant



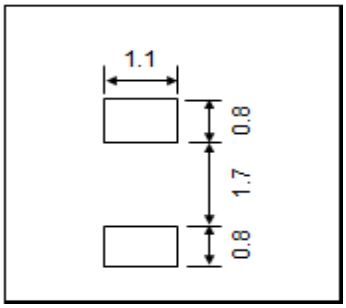
① Pre-Heating Rate	5℃/s Max.
② Pre-Heating	180℃ Max., 120s Max.
③ Heating Rate	1～5℃/s
④ Soldering	Over 230℃, 40s Max.
⑤ Peak Temperature	265℃ Max., 10s Max.
⑥ Cooling	60s Min.
⑦ Number of Times	2 Times Max.

5. Condition of Washing

Washing Bath		Time	Temperature	Remarks
First Bath	Ultrasonic Bath	～60sec	Room Temperature	25～28kHz, 15W/L
Second Bath	Immersion Bath	～60sec	Room Temperature	-
Third Bath	Vaper Bath ※	～60sec	～44.7℃	Boiling points differ to washing liquid.

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

6. Reference Copper Plate Area Dimension on Printed Circuit Board



Unit : mm

※ Copper plate area dimensions are reference dimensions with being soldered with conditions bellow.
PCB・・・・・・・・・・・・・・・FR-4, t=1.6mm
Solder paste・・・・・・・・M705-GRN360-K2V
Paste thickness・・・・・150um
Reflow soldering・・・・250℃, 10s Max.

Optimize footprint dimensions to the board design and soldering conditions.

Notes

1) The information contained herein is subject to change without notice.

2) Before you use our Products, please contact our sales representative and verify the latest specifications :

3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.
Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Poducts beyond the rating specified by ROHM.

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

5) 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 or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information.

6) The Products are intended for use in general electronic equipment (i.e. AV/OA devices, communication, consumer systems, gaming/entertainment sets) as well as the applications indicated in this document.

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

8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.

9) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.

10) ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.

11) ROHM has used reasonable care to ensur the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.

12) Please use the Products in accordance with any applicable environmental laws and regulations, such as the RoHS Directive. For more details, including RoHS compatibility, please contact a ROHM sales office. ROHM shall have no responsibility for any damages or losses resulting non-compliance with any applicable laws or regulations.

13) When providing our Products and technologies contained in this document to other countries, you must abide by the procedures and provisions stipulated in all applicable export laws and regulations, including without limitation the US Export Administration Regulations and the Foreign Exchange and Foreign Trade Act.

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