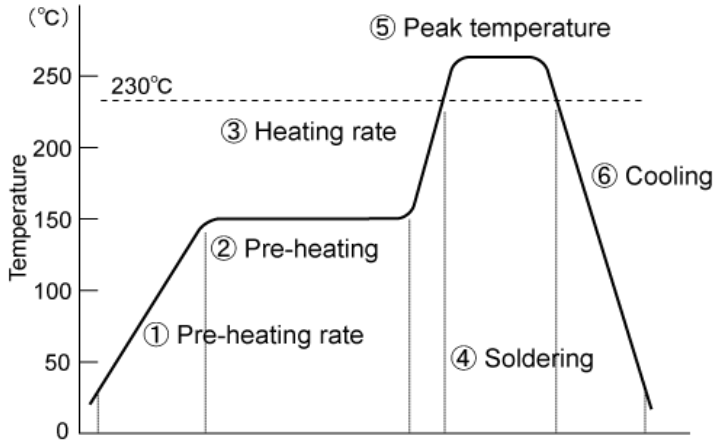


Product	Transistor / MOSFET	Package	SOT-89 (MPT3)
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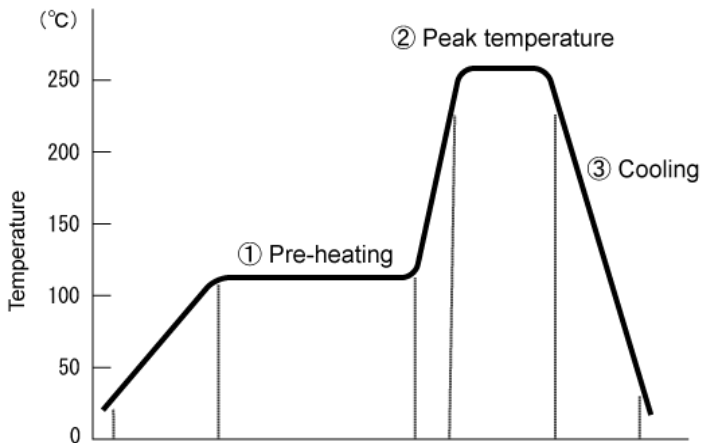
## ■ Recommendable Condition of Reflow Soldering



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

\* 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).

## ■ Recommendable Condition of Flow Soldering

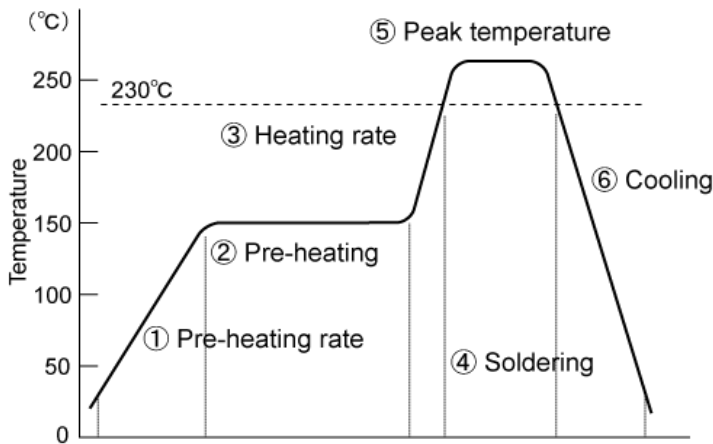


- ① Pre-Heating 100~120°C, 120~300s
- ② Peak Temperature 245~265°C 10s Max.
- ③ Cooling 60s Min.
- ④ Number of Times 1 Times Max.

## ■ Recommendable Condition of Hand Soldering

- 1) Temperature : 350°C Max.
- 2) Duration : Less than 3s
- 3) Number of Times : One Time

■ Condition of Heat-Resistant



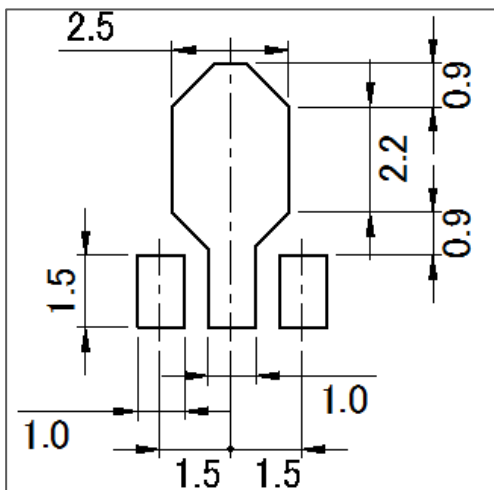
- ① Pre-Heating Rate 1~5°C/s
- ② Pre-Heating 150~180°C, 60~120s
- ③ Heating Rate 1~5°C/s
- ④ Soldering More than 230°C, 20~40s
- ⑤ Peak Temperature 265°C Max., 10s Max.
- ⑥ Cooling 60s Min.
- ⑦ Number of Times 2 Times Max.

■ 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°C	Boiling points differ to 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

## 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 Products 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.
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- 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.
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