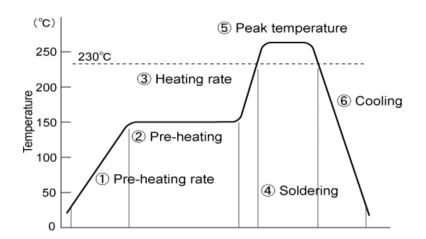


Condition of Soldering

Product	Diode	Package	SOT-457T(TSMD6)

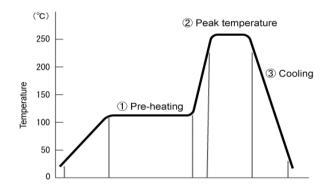
1. Reference Condition of Reflow Soldering



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	Over 230°C, 20~30s	
⑤ Peak Temperature	245~260°C, 10s Max.	
6 Cooling	60s Min.	
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).

2. Reference Condition of Flow Soldering



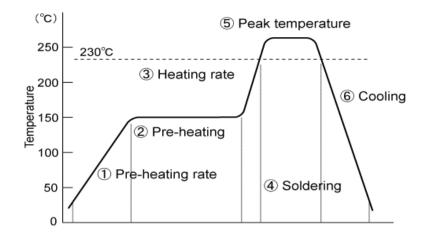
- ① Pre-Heating 100~120°C, 120~300s
- 2 Peak Temperature 245~265°C 10s Max.3 Cooling 60s Min.
- 4 Number of Times 1 Times Max.

3. Reference Condition of Hand Soldering

Temperature : 400°C Max.
Duration : Less than 3s
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



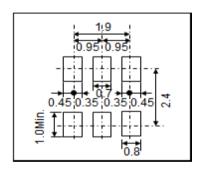
5°C/s Max.	
180°C Max.,	
120s Max.	
1~5°C/s	
Over 230°C,	
40s Max.	
265°C Max.,	
10s Max.	
60s Min.	
2 Times Max.	

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°C	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

X 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°C, 10s Max.

Optimize footprint dimensions to the board design and soldering conditions.

Notes

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- 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
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