

CONDITION OF SOLDERING FOR SURFACE MOUNTED DEVICES (DISCRETE SIC) LEAD FREE PASTE (Sn-3Ag-0.5Cu) VERSION

Product	SiC SBD / SiC MOSFET	Package	Surface Mount Devices
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1. REFERENCE CONDITION FOR WASHING

1-1.REFERENCE WASHING LIQUID

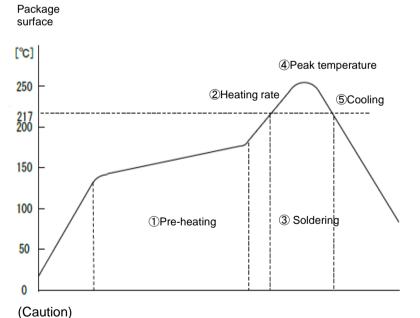
washing liquid		maker					
Water							
Ethanol							
Methanol							
Pine alpha	ST-100S	ARAKAWA CHEMICAL					
Clean through	750H	KAO					
Technocare	FRW-1	MOMENTIVE performance materials					
Mighty solve	AH-V	ASAHI GLASS					

1-2.REFERENCE CONDITION FOR WASHING

Washing bath		Time	Temperature	Remarks
			Room	
First bath	Ultrasonic bath	~60s	temperature	25~28kHz, 15W/cm3
			Room	
Second bath	Immersion bath	~60s	temperature	
				Temperature is depending
Third bath	Vaper bath	~60s	~44.7°C	on washing liquid.

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

2.REFERENCE CONDITION FOR REFLOW SOLDERING



- ① Pre-heating rate 1~5°C/s
- 2 Pre-heating • 130~170°C, 50~120 s
- ③ Heating rate · · 1~3°C/s
- ④ Soldering · Over 217°C, 60~120 s
- 5 Peak temperature • •

245°C

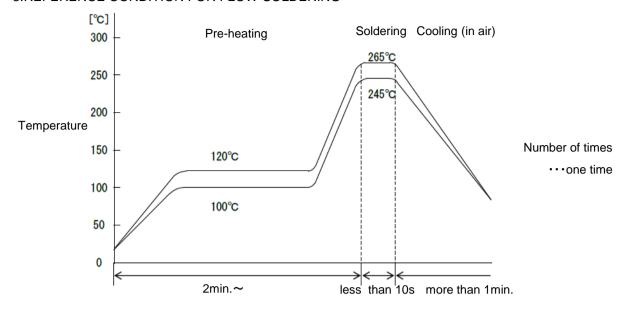
- ⑥ Cooling • • 1~6°C/s 245~217°C
- 7 Number of times 2 times max.

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 to examine whether there is problem in your own condition.

CONDITION OF SOLDERING FOR SMD-SiC_E

3.REFERENCE CONDITION FOR FLOW SOLDERING



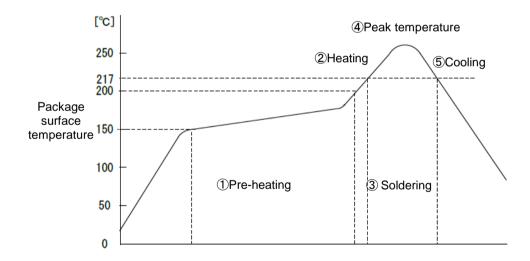
4.REFERENCE CONDITION FOR HAND SOLDERING

Temperature · · · 350°C

Duration · · · · · less than 3 s

Number of times one time

5.REFLOW PROFILE FOR HEAT-RESISTANCE TEST



⊕Pre-heating · · · · · · · · 150~200°C, 60~120 s

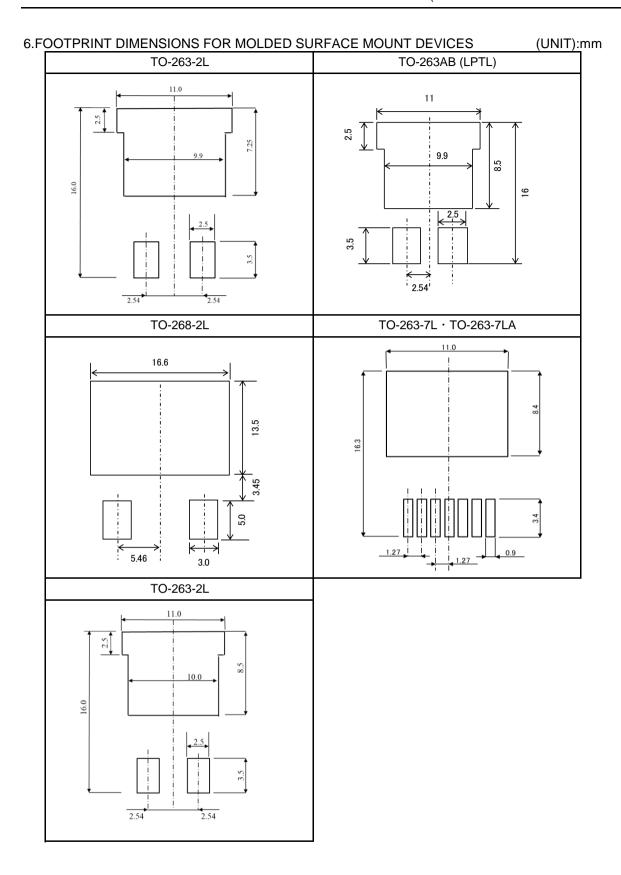
②Heating rate······ 3°C/s max.

③Soldering Over 217°C, 60~150 s

④Peak temperature · · · · · 245°C, Over 240°C 30 s

©Cooling · · · · · · · 6°C/s max 245~217°C

CONDITION OF SOLDERING FOR SMD-SiC_E



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