

CONDITION OF SOLDERING FOR SURFACE MOUNTED DEVICE (DISCRETE IGBT)

LEAD FREE PASTE(Sn-3Ag-0.5Cu)VERSION

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1. REFERENCE CONDITION FOR WASHING

1-1.REFERENCE WASHING LIQUID

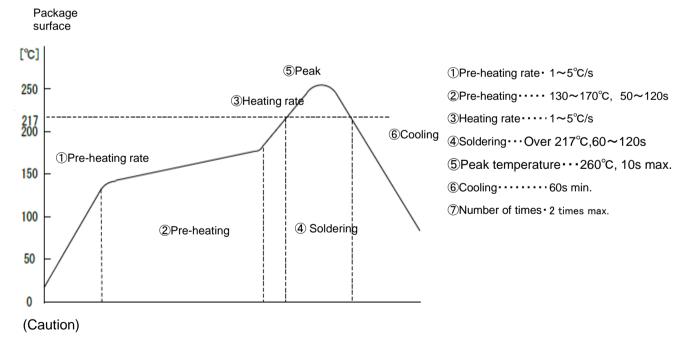
EKERGE WAGIIIRO EIGGID							
washing	liquid	maker					
Water							
Ethanol							
Methanol							
Pine alpha	ST-100S	ARAKAWA CHEMICAL					
Clean through	750H	KAO					
Technocare	FRW-1	MOMENTIVE performance material					
Mighty solve	AH-V	ASAHI GLASS					

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

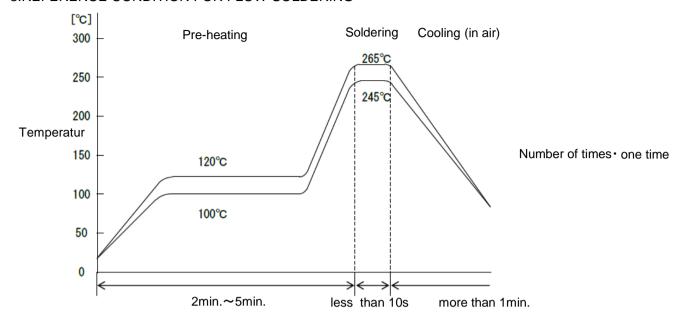


We concluded that there is no specific problem in characteristics and reliability under the temperature profile above.

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.

CONDITION OF SOLDERING FOR SMD-IGBT_E

3.REFERENCE CONDITION FOR FLOW SOLDERING



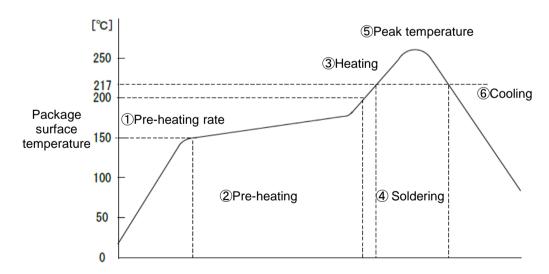
4.REFERENCE CONDITION FOR HAND SOLDERING

Temperature · · · · 350°C

Duration · · · · · less than 3s

Number of times • one time

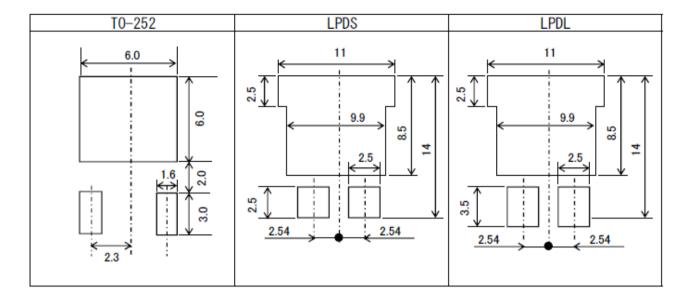
5.REFLOW PROFILE FOR HEAT-RESISTANCE TEST



- ①Pre-heating rate · · · · 5°C/s max.
- 2Pre-heating 150~200°C, 60~120s
- ③Heating rate······3°C/s max.
- (4) Soldering Over 217°C, 60~150s
- ⑤Peak temperature····260~265°C, 20~40s
- 6 Cooling · · · · · · · 60s min.
- Number of times · · · · 3 times

6.FOOTPRINT DIMENSIONS FOR MOLDED SURFACE MOUNT DEVICES

(UNIT):mm



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