

Electronics for the Future

PMDTM terminal plating Additional application for in-house plating (Application No:4022005)

June 28th ,2022 AP production Headquarters Discreate Production Division Power Device Engineering Department

Application content



[Overview]

For PMDTM package, we would like to apply for additional approval for in-house plating as well as outsourced plating for terminal processing points.

[Background]

It becomes difficult for outsourced companies to conduct plating processing due to the recent semiconductor shortage.

Therefore, ROHM would like to apply not only outsourced plating but also in-house plating as BCP countermeasure regarding PMDTM package of RWEM.

ROHM has applied for additional approval for the in-house plating in order to maintain a stable supply of products.

[Package]

All of PMDTM (Only RWEM production)

*Due to the same situation regarding PMDUM and PMDE, we are planning to apply in September 2023

[Change content]

	RWEM(this application)	ROHM WAKO(no change)				
Before	Two companies of outsourcing plating	Outsourcing plating				
After	Outsourcing plating + in-house plating	Outsourcing plating				

[Product name]

We do not plan to change the external model name for this addition.

If it need to take additional measures, we will consider multi-model names, so please contact us.

4M changes



[4M changes]

4M	Before(Outsourcing)	After(In house)	Change point
Man	Outsourcing operator	In house operator	Yes
Method	Deflash⇒Plating	Deflash ⇒Plating	No
Machine	Outsourcing machine	In house machine	Yes
Material	Sn100%	Sn100%	No

[Schedule]

	2022					2023											
	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Sales meeting	♦																
Application of PMDTM				•													
Sample				•													
Mass product				•													
Application of PMDUM and PMDE							_									♦	

^{*} Samples will be prepared in about 8 weeks.

^{*} If the launch of PMDUM and PMDE is accelerated, there is a possibility that the application for March 2023 will be advanced.

Result of reliability test



Conducting test type: RSA5LAMTR,RSA12LAMTR (Made in Malaysia)

% Pretreatment : Baking (Oven_125%×24h) ⇒Leaving at high temperature and humid (85%×85%×168h) ⇒Reflow (Peak 250%×3 times)

[Pn/n]

Test item		Test condition	Test time and result						
High HTRB temperature bias	_	Ta=150℃、	100h	240h	500h	1000h			
	' '	VR=VR max	0/77	0/77	0/77	0/77			
THB tempo	High temperature	Ta=85℃、Rh=85%、	100h	240h	500h	1000h			
	and humid bias	VR=VR max	0/77	0/77	0/77	0/77			
1 1/1 1	Pressure	Ta=121℃、	100h	300h	500h	1000h			
	cooker	Rh=100%、 2atm	0/77	0/77	0/77	0/77			
TCY	Temperature	-55°C(30min)∼	100сус	300сус	500cyc	1000сус			
	cycle	+150°C(30min)	0/77	0/77	0/77	0/77			

XIt is no problem about soldability and solder wettability



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[Pn/n]

Test item		Test condition	Test time and result						
LITED	High	Ta=150℃、	100h	240h	500h	1000h			
1 '	temperature bias	VR=VR max	0/77	0/77	0/77	0/77			
THB High temperature and humid bias	Ta=85℃、Rh=85%、	100h	240h	500h	1000h				
	and humid	VR=VR max	0/77	0/77	0/77	0/77			
1 12 1	Pressure	Ta=121℃、	100h	300h	500h	1000h			
	cooker	Rh=100%、 2atm	0/77	0/77	0/77	0/77			
TCY	Temperature	nperature -55°C(30min)~		300сус	500cyc	1000сус			
	cycle	+150°C(30min)	0/77	0/77	0/77	0/77			