

## 信頼性試験結果/Reliability Test Result

Product	LED
Package	SMD
Series	SMLMN2 * B1 * W(C)

1 試験結果(Test Result)

1.試験結果(Test		= N F \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			-
試験項目	参考規格	試験条件	n	Pn	
Test Items	Reference STD		(pcs)	(pcs)	4
半田耐熱	J-STD-020D-01				
		リフローピーク温度 :250℃ 10秒 220℃以上60秒			
		プレヒート :140°C~180°C 60秒			
0.11.11.15.11		リフロー回数 :2回	22	0	
Solder Heat Resistance		Prtreatment : Temperature Humidity Strage			
for Reflow Soldering		(30°C/70%RH/72hr)			
		Reflow Peak Temp.: 250°C 10sec Over 220°C/60sec			
		Preheat: 140 to 180°C 60sec Repeat for 2 cycles			4
半田付性	JESD22-B102E	ロジン系フラックスに5±1秒浸漬し、245±5℃の			
		Pbフリー半田槽で製品裏面を3±0.5秒浸漬	22	0	*
Solderbility		Immerse into rosin flux for 5±1sec,and the device			1
		for 3±0.5sec into Pb-free solder bath at 245±5°C			4
落下	JEITA ED-4701	高さ:75cm 楓板上:3回	22	0	
Free Drop	A-124	H=75cm Maple Boad : 3 times	22	Ů	╛
振動	JEITA ED-4701	100~2000Hz 98.1m/s <sup>2</sup> X,Y,Zの各方向 2時間			
Vibration	A-121	100∼2000Hz 98.1m/s <sup>2</sup>	22	0	
		2hours each on each direction of X,Y,Z			
温度サイクル	JESD22-A104E	Ta=Tstg Min.°C(30min.) ~ Tstg Max.°C(30min.)100cycle	22	0	1
Thermal Cycle			22	U	
高温放置	JESD22-A103E	Ta=Tstg Max.+5°C/-0°C 1000hrs			1
High Temperature			22	0	
Strage					
高温高湿放置	JEITA ED-4701	Ta=85±2°C 85±5%RH 240hrs			1
High Temperature	B-121		22	0	
High Humidity Strage					
低温放置	JESD22-A119A	Ta=Tstg Min.±5°C 1000hrs	_		1
Low Temperature			22	0	
Strage					ı
動作寿命	JESD22-A108D	Ta=25±5°C IF=IFMAX 1000hrs	22	0	1
Load Life			22	"	1

2 測定項目及び故障判定基準(Failure Criteria)

<u> 2.別足頃日及い以降刊足季年</u>	(Tallure Officeria)		
測定項目	測定条件	故障判定基準	
Items	Condition	Criteria	
光度	光度 IF=5mA	初期値の60%	
Luminous Intensity	11 –511174	60% of the initial value	
順方向電圧	IF=5mA	初期値に対する変化率±10%	
Forward Voltage	IF-SIIIA	Changing rate of $\pm 10\%$	
逆方向電流	VR=VR Max.	規格最大値	
Reverse Current	VK-VK Wax.	Maximum of specification	
外観	目視	著しい変化のないこと	
Physical	Visual Check	No outstanding change in physical	

*1	半田付性	電極部の95%以上が半田で覆われていること	ĺ
	Solderbility	More than 95% of the electrode must be covered with solder.	l

<sup>※</sup>当データは、特定Lotの実力値であり保証値ではありません。 ※This data is actual value from specific lot and is not guaranteed.

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