

# 信頼性試験結果/Reliability Test Result

Product	LED
Package	SMD
Series	SMLA12BN8T series

1.試験結果(Test Result)

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試験項目	参考規格	試験条件	n	Pn
Test Items	Reference STD		(pcs)	(pcs)
半田耐熱	J-STD-020D-01			
		リフローピーク温度 :260℃ 10秒 230℃以上60秒		
		プ <sup>°</sup> レヒート: 140°C~180°C 60秒		
		リフロー回数 :2回	22	0
Solder Heat Resistance		Prtreatment : Temperature Humidity Strage	22	U
for Reflow Soldering		(30°C/70%RH/168hr)		
		Reflow Peak Temp. : 260°C 10sec Over 220°C/60sec		
		Preheat: 140 to 180°C 60sec Repeat for 2 cycles		
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	22	U
		for 3±0.5sec into Pb−free solder bath at 245±5°C		
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	U
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
Thermal Cycle			22	U
高温放置	JESD22-A103E	Ta=Tstg Max.+5°C/-0°C 1000hrs		
High Temperature			22	0
Strage				
高温高湿放置	JEITA ED-4701	Ta=85±2°C 85±5%RH 240hrs		
High Temperature	B-121		22	0
High Humidity Strage				
低温放置	JESD22-A119A	Ta=Tstg Min.±5°C 1000hrs		
Low Temperature			22	0
Strage				
動作寿命	JESD22-A108D	Ta=25±5°C IF=IF Max. 1000hrs	22	0
Load Life			22	U

### 2.測定項目及び故障判定基準(Failure Criteria)

測定項目	測定条件	故障判定基準			
Items	Condition	Criteria			
光度	IF=5mA	初期値の60%			
Luminous Intensity	II –SIIIA	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			

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

<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。

XThis data is actual value from specific lot and is not guaranteed.

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