

Reliability Report

Isahaya Electronics Corporation
Quality Assurance Department

Issue Date 2015/3/13
Doc. No. IRC-TR-3E-B

1. Reliability Test Results

Group	Test Items	Test Conditions	Test Quantity	Failure Quantity	Remarks
1	Solderability	Solder Temperature 230°C Immersion Time 5sec Using rosin-type flux	45	0	
2	Resistance to solder heat	Solder Temperature 260°C Immersion Time 10sec Immersing 1.5mm to the root of leads	22	0	
3	Whisker	60°C, 90%RH, 4000hr	20	0	
		-40°C, 85°C, 30 min each, 1500 cycles			
		Room Temperature 8760hr			
4	Temperature Cycle	Ta=Tstg(min)~Tstg(max) 30min each cycle 100 cycles	45	0	
5	Humidity Resistance	Ta=85°C, 85%RH 1000hr	45	0	
6	High Temperature Storage	Ta=Tstg(max) 1000hr	45	0	
7	High Temperature Reverse Bias	Ta=Tstg(max) VCES=VCEO(max) 1000hr	45	0	
8	Pressure Cooker Test	121°C, 100%RH, 2 × 10 ⁵ Pa 96hr	45	0	
9	Operation life test	Ta=25°C Pc=Pc(max) 1000hr	45	0	
10	Electrostatic Breakdown Resistance	C=200pF, 0Ω Applied Voltage ±200V Applied once on each pin	11	0	
11	Terminal Strength	2.45N, 90°, Bending twice	22	0	

2. Failure Criteria

Group	Failure Criteria	
1	Less than 95% of the immersed part is covered with solder.	
3	50μ m or more	
11	An abnormality is observed such as broken lead.	
2, 4~10	Measurement items	Failure Criteria
	ICBO	Which does not meet the electrical characteristics.
	IEBO	
	hFE	Which does not meet the electrical characteristics.
	VCE(sat)	Whose change rate exceeds ±20%.
Visual Check	An apparent change in appearance is observed.	

Measurement conditions are based on the corresponding specification sheet.

For further information of the contents above, please contact our Business Department.