RELIABILITY TEST PROCEDURES FOR ECX-306X Series



NO. TEST NAME TEST PROCEDURES REQUIREMENTS

1	SHOCK	Drop 3 times from the height of 100 cm onto hard wooden board.	Frequency Drift ±5 PPM Max. Satisfy the spec. of Duty, Vol and Voh
2	VIBRATION	Vibration Frequency: 10 to 55Hz, 0.9mm, full wave Cycle: 2 min. Direction: X.Y.Z. Time: 2 hours in each direction	Frequency Drift ±5 PPM Max. Satisfy the spec. of Duty, Vol and Voh
3	STORAGE IN HIGH TEMPERATURE	+85 ±2°C for 500 hours.	Frequency Drift ±10 PPM Max.
4	STORAGE IN LOW TEMPERATURE	-40 ±3°C for 500 hours.	Frequency Drift ±5 PPM Max.
5	HUMIDITY	$+$ 60 \pm 2°C in humidity 90%~95% for 500 hours.	Frequency Drift ±5 PPM Max.
6	THERMAL SHOCK	Supply 10 cycles as follows: Temperature shift shall be done within 30 sec55 ±2°C +125 ±2°C (30 min) <> (30 min)	Frequency Drift ±10 PPM Max.
7		Pass through reflow for 10s (Max.) which is pre-heated at a temperature of 160°C ± 10°C and 240°C ± 5°C	Frequency Drift ±5 PPM Max. Satisfy the spec. of Duty, Vol and Voh
8	AGING	Place in chamber at a temperature of +85°C ±3°C for 500 hours.	Frequency Drift ±5 PPM Max.
9	SEALING TIGHTNESS MIL-STD 202F METHOD 112D TEST C AND D	1) Dipping in Florinert at: +125 ±5°C for 5 min. (Gross Leak) 2) Leak rate shall be measured by using: Helium leak Detector (Fine Leak)	There are no visual abnormalities. There are no visual abnormalities.
10	Mean Time Between Failures (MTBF)	$Ea \times (1/T1-1/T2) / K$ $MTBF (25°C) = \frac{HsXe°Ce}{\pi}$	16396600 Hours