iCG Series

RELIABILITY DATA

信頼性データ

TDK·Lambda

Qualification Report Summary for: iCG05006A006V-006-R Sample universe: Units manufactured at TDK-Lambda - Malaysia in Week 38,2009, Lot number: 0938M1	Samples	Failures	Notes
Visual Inspection			
Inspect for quality and workmanship	32	0	
Dimension check			
Inspect physical dimensions against mechanical requirements	1	0	
Initial characterization			
Measurements of all applicable tests of manufacturing test requirements.	32	0	
Air to air thermal shock			
Samples exposed in an air-to-air thermal shock chamber between temperatures of: -55 to 125°C at a ramp rate of approximately 90°C per minute. Dwell time at each extreme is 15 minutes.			
200 thermal cycles	15	0	
Power thermal cycle			
Samples exposed to a combined power thermal cycling at 6 amps output load. The reference temperature range is approximately -40°C to 120°C. The dwell time at each temperature is approximately 18 minutes. The thermal ramp rate is approximately 10°C to 20°C per minute. Each line cycle is low line, nominal line, high line 60 seconds each and line off 60 seconds.			
100 thermal cycles	5	0	
Humidity test			
Samples are exposed to 90% relative humidity at a temperature of approximately 50°C and tested within one minute after removal from chamber.			
96 hours	5	0	
Accelerated stress test (AST)			
Temperature extremes found during design marginality testing to run this test. The reference temperature range is approximately -40°C to 105°C. The thermal ramp rate is approximately 30°C per minute and the dwell time at each temperature is approximately 18 minutes. Apply line conditions per the Power Thermal Cycle section and within each line condition, cycle load current from minimum to full load current from minimum to full load condition with a 50% duty cycle. Apply triaxial vibration, simultaneous (6DOF), 20 Hz to 2KHz, random following the vibration cycles listed below or until failure.			
05 Grms for 1 thermal cycle - Pass	2	0	
10 Grms for 1 thermal cycle - Pass	2	0	
15 Grms for 2 thermal cycle - Pass	2	0	
Final characterization			
Repeat tests on all units except those used with AST and PTC	25	25	
Notes		**CAR**	
Approved : Robert Terry - Representative of Qualification and Test - 02/26/2010			