

GLASS DIODE RELIABILITY TEST PROGRAM

玻封二極管可靠性測試目錄

Test Items 測試項目	Test Conditions 測試條件	Sampling Plan 抽樣計劃	Frequency 頻率
High Temperature Storage Test 高溫貯存測試	$T_a = T_{stg\ Max.} \pm 5^\circ C$ 168+16/-10hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Low Temperature Storage Test 低溫貯存測試	$T_a = T_{stg\ Min.} \pm 5^\circ C$ 168+16/-10hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
High Temperature Reverse Bias Test(HTRB) 高溫直流反向偏壓測試	$V_R(V_Z) = V_{RMax.}$, $T_a = T_j \pm 5^\circ C$ $R_L = 1M\Omega$ (>400V) /500K Ω 168+16/-10 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Alternating Current/Voltage Test (Switching Diode) 交流工作測試	$V_R = V_{RMax.}$, $f = 50Hz$, $R_L = 510\Omega$ 168+16/-10hrs, $T_a = 25 \pm 5^\circ C$	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Continuous Operation Test (Zener Diode) 工作壽命測試	$P_{tot} = UI$ 168+16/-10hrs $R_L = 5\Omega$, $T_a = 25 \pm 5^\circ C$	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Constant Temperature/Humidity Storage Test 恆溫恆濕儲存測試	$T_a = 85 \pm 2$, $RH = 85 \pm 5\%$ 168+16/-10hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Temperature Cycling Test 溫度循環測試	$T_{stg\ Min.}$ 30+2/-0min ; 25 $\pm 5^\circ C$, 10+2/-0min ; $T_{stg\ Max.}$ 30+2/-0min ; 25 $\pm 5^\circ C$, 10+2/-0min; (10 Cycles)	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Thermal Shock Test 熱循環測試	100 $\pm 5^\circ C$, 3~4mins; 0 $\pm 5^\circ C$, 3~4 mins (10 Cycles)	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Solder Heat Resistance Test 耐焊接測試	Solder temperature: 260 $\pm 5^\circ C$ immersion time: 10+2/-0sec	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
High Pressure / High Humidity / High Temperature Test (PCT) 高壓 / 高濕 / 高溫測試	Vapor Pressure=1.05kg/cm ² RH=100%, $T_a = 121^\circ C$ 24+2/-0 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Axial Pull Test 軸向拉力測試	$I_f = 200mA$ and Pull strength $T_a = 25 \pm 5^\circ C$	Sample size : 10 pcs Ac/Re: 0/1	Once / Month
Snap Test 壓力測試	Tested by manometer	Sample size : 10 pcs Ac/Re: 0/1	Once / Month
Marking Permanence Test 噴字固化測試	Put the products into the ultrasonic cleaning machine filled with ethanol 20sec	Sample size : 10 pcs Ac/Re: 0/1	Once / Month
Solderability Test 可焊性測試	245 $\pm 5^\circ C$ for 5 ± 1 sec(MELF) 245 $\pm 3^\circ C$ for 5 ± 1 sec(DIP) 99.97 Sn/0.03 Others	Sample size : 10 pcs Ac/Re: 0/1	Once / Month