

TRANSISTOR RELIABILITY TEST PROGRAM

三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	$T_a = T_{\text{stg Max.}} \pm 5^\circ\text{C}$ 168 + 16/ - 10 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Low Temperature Storage Test 低溫貯存測試	$T_a = T_{\text{stg Min.}} \pm 5^\circ\text{C}$ 168 + 16/ - 10 hrs	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	$V_{CB} = V_{CBO \text{ Max.}}$, $R_L = 1\text{M}\Omega$ 168 + 16/ - 10 hrs $T_a = T_j \pm 5^\circ\text{C}$	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Continuous Operation Test 工作壽命測試	$V_{CE} = 0.7V_{CEO \text{ Max.}}$, $I_C = P_{\text{tot}}/V_{CE}$ $R_L = 100\Omega$, $T_a = 25 \pm 5^\circ\text{C}$ 168 + 16/ - 10 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Constant Temperature/Humidity Storage Test 恆溫恆濕儲存測試	$V_{CB} = V_{CBO \text{ Max.}}$, $T_a = 85 \pm 5^\circ\text{C}$ RH=85±5%, 168 + 16/ - 10 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Temperature Cycling Test 溫度循環測試	$T_{\text{stg Min.}}$, 30 + 2/ - 0 min ; 25±5°C, 10 + 2/ - 0 min ; $T_{\text{stg Max.}}$, 30 + 2/ - 0 min ; 25±5°C, 10 + 2/ - 0 min; (10 Cycles)	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%, $T_a = 121^\circ\text{C}$ 24+2/-0 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Solder Heat Resistance Test 耐焊接測試	Solder temperature: $260 \pm 5^\circ\text{C}$ immersion time: 10 + 2/ - 0 sec	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Solderability Test 可焊性測試	245±5°C for 5±1sec(SOT) 245±3°C for 5±1sec(TO-92) Sn100%	Sample size : 10 pcs Ac/Re: 0/1	Once / Month