

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	$T_a = T_{stg\ Max.} \pm 5^\circ C$ 168 + 16 / - 10 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Low Temperature Storage Test 低溫貯存測試	$T_a = T_{stg\ Min.} \pm 5^\circ C$ 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	VCB=VCBO MAX $R_L = 1M\Omega (>400V) / 500K\Omega$ 168 + 16 / - 10 hrs $T_a = T_j \pm 5$	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Continuous Operation Test 工作壽命測試	$V_{CE} = 0.7V_{CE0Max.}$, $I_C = P_{tot} / V_{CE}$ $R_L = 100\Omega$, $T_a = 25 \pm 5^\circ C$ 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	$V_{CB} = V_{CBO\ Max.}$, $T_a = 85 \pm 2$ 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	$T_{stg\ Min.}$, 30 + 2 / - 0 min ; 25 ± 5 °C, 10 + 2 / - 0 min ; $T_{stg\ Max.}$, 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%, $T_a = 121^\circ C$ 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 ± 5 °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 ± 1 sec (SOT) 245 ± 3 °C for 5 ± 1 sec (TO-92) 99.97 Sn / 0.03 Others	Sample size : 10 pcs Ac/Re: 0/1	Once / Month