PLASTIC DIODE RELIABILITY TEST PROGRAM

Test Items	Test Conditions	Sampling Plan	Frequency
High Temperature Storage Test	$T_a=T_{stg\ Max.}$ ±5℃ 168+16/−10hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Low Temperature Storage Test	$T_a=T_{stg\ Min.}$ ±5℃ 168+16/−10hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
High Temperature Reverse Bias Test (HTRB)	$V_R(V_Z)=V_{RMax.}$, $T_a=T_j$±5℃ R_L=5Ω, 168+16/−10hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Alternating Current/Voltage Test (Switching Diode, Rectifier Diode, Schottky Diode, AFC Diode)	$V_R=V_{RMax.}$ f=50Hz, RL=510Ω 168+16/−10hrs, Ta=25±5℃	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Continuous Operation Test (Zener Diode)	P_{tot}=UI RL=5Ω 168+16/−10 hrs, T_a=25±5℃	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Constant Temperature/Humidity Storage Test	T_a=85±5℃, RH=85±5% 168+16/−10 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Temperature Cycling Test	$T_{stg\ Min.}$, 30+2/−0 min ; 25±5℃, 10+2/−0 min ; $T_{stg\ Max.}$, 30+2/−0 min ; 25±5℃, 10+2/−0 min; (10 Cycles)	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Solder Heat Resistance Test	Solder temperature: 260±5℃ immersion time: 10 +2/−0 sec	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
High Pressure / High Humidity / High Temperature Test (PCT)	Vapor Pressure=1.05kg/cm^2 RH=100%, T_a=121℃ 24+2/-0 hrs	Sample size : 40 pcs Ac/Re: 0/1	Once / Month
Solderability Test	245±5℃ for 5±1 sec Sn100%	Sample size : 10 pcs Ac/Re: 0/1	Once / Month
Marking Permanence Test (DO-213AA Package Products)	Put the products into the ultrasonic cleaning machine filled with ethanol 20sec	Sample size : 10 pcs Ac/Re: 0/1	Once / Month

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