

ICEMOS SUPERJUNCTION MOSFET Product Qualification Reliability Test Report

ICE10N60

Report Description

This report describes the characteristics of the product as it pertains to the device quality and reliability. The samples used for this qualification were taken from production lots that were manufactured and tested using our standard production processes and meet the device specifications.

The qualification test results of the product as outlined in this document are based on recognized industry standard reliability test methods.

Qualification Assessment

This product has successfully completed all qualification reliability testing to meet the recognized industry standards and is therefore granted “Full Qualification” status from 2012. This reliability report is subject to appropriate updates as required.

For additional information, please contact your IceMOS Sales Representative. (www.icemostech.com).

ISSUED BY: ICEMOS TECHNOLOGY

Product: ICE10N60
Package: TO220 3L
MSL Level: MSL-1

Items	Test Description(Abbr.)	Test method.	Stress Condition	Sample Qty.	Electrical Reject	Result
1	Temperature Cycle(TCT)	JESD22-A104	1000 cycles, ΔT_j -55 to 150°C	77pcs*1lot 77pcs*1lot	0/77 0/77	PASS
2	High Temp storage(HTS)	Mil-Std. 750 Method 1032	500 hrs, $T_j = 150^\circ\text{C}$	77pcs*1lot	0/77	PASS
3	Steady State Gate Bias positive (HTGB)	Mil-Std. 750 Method 1042-B	1000 hrs, VGS = +24V $T_j = 150^\circ\text{C}$	80pcs*1lot	0/80	PASS
4	Steady State Gate Bias negative (HTGB)	Mil-Std. 750 Method 1042-B	1000 hrs, VGS = -24V $T_j = 150^\circ\text{C}$	80pcs*1lot	0/80	PASS
5	Steady State Reverse bias (HTRB)	Mil-Std. 750 Method 1042-A	1000 hrs, VDS = 480V $T_j = 150^\circ\text{C}$	77pcs*1lot 77pcs*1lot	0/77 0/77	PASS
6	High Temp High Humidity Reverse Bias (H3TRB)	Mil-Std. 750 Method 1042-A	1000 hrs, VDS = 480V $T_j = 85^\circ\text{C}$, RH = 85%	77pcs*1lot 77pcs*1lot	0/77 0/77	PASS

IMPORTANT NOTICE:

Information contained in this report shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, IceMOS Technology hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party. In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of IceMOS Technology in customer's applications. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application. IceMOS technology will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this report.