

ICEMOS SUPERJUNCTION MOSFET Product Qualification Reliability Test Report

ICE20N60B

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: ICE20N60B
Package: TO263 2L
MSL Level: MSL-3

Items	Test Description(Abbr.)	Test method.	Stress Condition	Sample Qty.	Electrical Reject	Result
1	Pre-conditioning (MSL3)	JESD22-020D	Bake : 125C, 24hrs Moisture Soak : 60C,60%RH,40hrs Reflow : 260C, 3times	45pcs*1lot	0/45	PASS
2	Temperature Cycle(TCT)	JESD22-A104	1000 cycles, ΔT_j -55 to 150°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	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%	26pcs*1lot	0/26	PASS

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