



Qualification of Clas-SiC Wafer Fab

As a global supplier of silicon carbide power devices, SemiQ has undertaken a major initiative to build a fully redundant supply chain. Critically, this includes wafer fabrication of our silicon carbide products. The new wafer fabrication site is Clas-SiC Wafer Fab, in Lochgelly, Scotland. Clas-SiC Wafer Fab, along with our existing wafer fabrication partner, X-Fab in Lubbock, Texas, will be producing SiC diodes and MOSFET devices.

Full qualification completed August 01, 2022. The table below summarizes the reliability testing protocol and results.

GP2T080A120U 1200V SiC MOSFET Qualification Summary:

JEDEC Test	Duration	Number of Lots	Total Samples	Number of Fails	JEDEC Result
HTRB	1000 Hours	3	240	0	Pass
HTGB +25V	1000 Hours	3	240	0	Pass
HTGB -10V	1000 Hours	3	240	0	Pass
H3TRB	1000 Hours	3	240	0	Pass
TC	2000 Cycles	3	121	0	Pass
UHAST	96 Hours	3	90	0	Pass
HTSL	1000 Hours	3	90	0	Pass
IOL	3000 Cycles	3	66	0	Pass
ESD HBM	Pulse at 1000V	1	3	0	Pass
ESD CDM	Pulse at 1000V	1	3	0	Pass

SemiQ has worked closely with Clas-SiC Wafer Fab to ensure equivalent process technologies are utilized to fabricate SemiQ SiC diodes and MOSFET devices that meet all existing datasheet specifications, and can sell under the same product numbers.

Lot numbering marked on product will ensure traceability through the entire supply chain. As has always been SemiQ's policy, products built by different suppliers will not be mixed within an assembly, or within the inner cartons of a shipment.

Should you have any further questions, please contact SemiQ Sales.