

CONSUMER LEVEL QUALIFICATION REQUIREMENTS FOR DISCRETE PRODUCT

Stress Test	Conditions	Duration ²	Sample Size ¹
Temperature Cycling (T/C)	- 55 °C to 150 °C, or - 40 °C to 125 °C 30 minutes Dwell	1000 cycles	3 lots x 77 devices
Temperature and Humidity Bias (H3TRB)	85 °C/85%RH @ 80% of Max VDSS/VCES/VR up to 100V	1000 hours	3 lots x 77 devices
High Temperature Reverse Bias (HTRB)	T _j =125 °C to 175 °C @ 80% of Max VDSS/VCES/VR	1000 hours	3 lots x 77 devices
High Temperature Gate Bias (HTGB)	T _j =150 °C or 175 °C @ 80% of Max VGSS	1000 hours	3 lots x 77 devices

Note: Family data may be used to qualify one or more products.

1= Number of lots may be reduced to 1 after product family is qualified.

2= Duration is 500 hours or 500 cycles for selected products, e.g. DirectFET and QFN.

PRECONDITIONING REQUIREMENTS

MSL-1 preconditioning is required for surface mount capable devices that are put on Temperature Cycling, H3TRB, IOL, and Autoclave tests. If straight leaded devices (such as I-PAK or TO-262) are used, then the devices are required to undergo the preconditioning with a third reflow exposure in lieu of the surface mounting step.

PASS/FAIL CRITERIA

Electrical parameters must not exceed the datasheet limits.