

# UHB50SC12E1BC3N

## 1200V 50A SiC, Half-Bridge, G3, E1BN

Package Type: E1B  
Process Technology: SiC, Si  
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TEST NAME	TEST STANDARD AND CONDITIONS	# SAMPLES x # LOTS	TEST RESULTS
High Temperature Gate Bias (HTGB)	JESD22-A108: $T_J = 150^{\circ}\text{C}$ , $V_{GS} = +20\text{V}$ , 2000 hrs	6 pcs x 3 lots	6 pcs x 3 lots Pass 0 pcs Fail
High Temperature Reverse Bias (HTRB)	MIL-STD-750-1 M1038 Method A: $T_J = 150^{\circ}\text{C}$ , $V_{DS} = 80\% V_{DS,MAX} = 960\text{V}$ 2000 hrs	6 pcs x 3 lots	6 pcs x 3 lots Pass 0 pcs Fail
Highly Accelerated Stress Test (HAST)	IEC 60068-2-67: $135^{\circ}\text{C}$ , RH = 85%, 96 hrs, $V_{ds} = 42\text{V}$ , $V_{gs} = 0\text{V}$	6 pcs x 3 lots	6 pcs x 3 lots Pass 0 pcs Fail
Temperature Cycling (TC) <sup>†</sup>	JESD22-A104: 300 cycles, $-40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ , 2 cycles/hour,	6 pcs x 3 lots	6 pcs x 3 lots Pass 0 pcs Fail
Intermittent Operating Life (IOL) <sup>†</sup>	MIL-STD-750 Method 1037: $\Delta T_J \geq 100^{\circ}\text{C}$ , 20,000 cycles (Ton/Toff dependent on device)	6 pcs x 3 lots	6 pcs x 3 lots Pass 0 pcs Fail
Conclusion	This part meets Qorvo's product qualification requirements.		

### Qualification Samples:

QBG1CGLB – UFB15C12E1BC3N – 1 Lot  
QDN1SGLB – UHB100SC12E1BC3N – 1 Lot  
USP50SC12E1BC3N – 1 Lot

### Products Qualified by Similarity:

QBK1SGLB – UFB25SC12E1BC3N  
QDL1SGLB – UHB50SC12E1BC3N