

# Reliability Report

Part Number: IGBT Discrete THT Series

Test Results : **PASS**

Test Item	Conditions	Duration	Quantity	Rejects
<b>TEST</b> Pre- and Post-Stress Electrical Test	$T_a = 25\text{ }^\circ\text{C}$	N/A	all parts	see below
<b>HTRB</b> High Temperature Reverse Bias	MIL-STD-750 Method 1038 $T_j = T_{jmax}, 80\% \text{ VDS}$	1000 hours	77Pcs	0
<b>HTGB</b> High Temperature Gate Bias	JESD22-A-108 $T_j = T_{jmax}, 100\% \text{ Vge(th)}$	1000 hours	77Pcs	0
<b>TC</b> Temperature Cycling	JESD22-A104 -55 $^\circ\text{C}$ (+0,-10)/15Min~ 150(+15,-0)/15Min,	1000Cycles (500hours)	77Pcs	0
<b>AC</b> Autoclave	JESD22-A102 $T_a = 121\text{ }^\circ\text{C} \pm 2\text{ }^\circ\text{C}$ , RH = 100 %, 15psig	96 hours	77Pcs	0
<b>H3TRB</b> High Humidity High Temperature Reverse Bias	JESD22-A101 $T_a = 85\text{ }^\circ\text{C} \pm 2\text{ }^\circ\text{C}$ , RH = 85%±5%, 80 % VDS (VDS MAX=100V)	1000 hours	77Pcs	0
<b>IOL</b> Intermittent Operating Life	MIL-STD-750 Method 1037 ON 2Min/OFF 2min, $\Delta T_j \geq 100\text{ }^\circ\text{C}$	15000 cycles (1000 hours)	77Pcs	0
<b>RSH</b> Resistance to Solder Heat	JESD22-B106 260 $^\circ\text{C}$ (+5, -0)	10 s	30Pcs	0
<b>SD</b> Solderability	J-STD-002 235 $^\circ\text{C} \pm 5\text{ }^\circ\text{C}$	3 s	10Pcs	0
<b>HTSL</b> High Temperature Storage Life	JESD22-A103 TstgMax	1000 hours	77Pcs	0