



Micro Commercial Components

# Reliability Report

Part Number: MOSFET SMD Series

Yearly Reliability monitoring:2024

Based on similar Structural

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>* Pre-conditioning</b>	JESD22A-113 1. Temperature Cycling:-40 $^\circ\text{C}$ ~60 $^\circ\text{C}$ , 2. Bake:125 $^\circ\text{C}$ , 3.1 Moisture Soak:85 $^\circ\text{C}$ , 85%RH for MSL1 OR 3.2 Moisture Soak:30 $^\circ\text{C}$ , 60%RH for MSL3; 4. Reflow*3Cycles:260 $^\circ\text{C}$	5Cycles; 24 hours; 168hours  192hours  3Cycles	308Pcs	0
<b>HTRB</b> High Temperature Reverse Bias	MIL-STD-750 Method 1038 $T_j = T_{jmax}$ , 80% VDS	1000 hours	77Pcs	0
<b>HTGB</b> High Temperature Gate Bias	JESD22-A-108 $T_j = T_{jmax}$ , 100% Vgs	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% $\pm$ 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 $T_{stgMax}$	1000 hours	77Pcs	0

\* Remark : detail MSL of product refer to data sheet on MCC website.