



Date: Jan 14, 2022

PCN No#: 011422-1

PCN Title: Additional new wafer source for MMBTA06-TP

Dear Customer:

This is an announcement of change(s) to products that are currently being offered by Micro Commercial Components Corp(MCC) .We request that you acknowledge receipt of this notification within 30 days of the date of this PCN. Please refer to the implementation date of this change as it is stated in the attached PCN form. Please contact your local sales representative to acknowledge receipt of this PCN.

If you have any questions about PCN's products, please contact your local sales representative.

Sincerely,

MCC PCN Team

## PRODUCT CHANGE NOTICE

Notification Date	Implementation Date	Change Type	Classification	PCN No
Jan 14, 2021	ASAP	Add new wafer source	Major	011422-1
<b>TITLE</b>				
Additional new wafer source for MMBTA06-TP				
<b>DESCRIPTION OF CHANGE</b>				
To solve our delivery issue of MMBTA06-TP, MCC has determined to add a new wafer source. Internal qualification process had been finished and the result showed that the parts with new wafer exactly met our specification.				
<b>IMPACT</b>				
No change in datasheet electrical parameters . Table A: Electrical characteristics comparison.				
<b>PRODUCTS AFFECTED</b>				
MMBTA06-TP				
<b>WEB LINKS</b>				
<b>Terms And Conditions:</b>	<a href="https://www.mccsemi.com/Home/TermsAndConditions">https://www.mccsemi.com/Home/TermsAndConditions</a>			
<b>For More Information Contact:</b>	<a href="https://www.mccsemi.com/Contact/Index">https://www.mccsemi.com/Contact/Index</a>			
<b>Products:</b>	<a href="https://www.mccsemi.com/ProductCategories">https://www.mccsemi.com/ProductCategories</a>			
<b>DISCLAIMER</b>				
Unless a MCC Sales representative is contacted in writing within 30 days of the posting of this notice, all changes described in this announcement are considered approved.				

**Table A - Electrical Characteristics Comparison**

Spec	Conditions	Typical Value	
		Old	New
$V_{(BR)CBO} > 80V$	$I_C = 100\mu A, I_E = 0$	143V	173V
$V_{(BR)CEO} > 80V$	$I_C = 1mA, I_B = 0$	104V	112V
$V_{(BR)EBO} > 4V$	$I_E = 100\mu A, I_C = 0$	9.6V	8.4V
$I_{CBO} < 100nA$	$V_{CB} = 80V, I_E = 0$	5.4nA	3.3nA
$I_{CEO} < 1\mu A$	$V_{CE} = 60V, I_B = 0$	3nA	6nA
$I_{EBO} < 100\mu A$	$V_{EB} = 3V, I_C = 0$	0.66 $\mu A$	0.71 $\mu A$
$100 < h_{FE(1)} < 400$	$V_{CE} = 1V, I_C = 10mA$	180	141
$h_{FE(2)} > 100$	$V_{CE} = 1V, I_C = 100mA$	173	138
$V_{CE(sat)} < 0.25V$	$I_C = 100mA, I_B = 10mA$	0.037V	0.038V
$V_{BE(sat)} < 1.2V$	$I_C = 100mA, I_B = 10mA$	0.797V	0.773V

# Reliability Report

Part Number: MMBTA06-TP

Date: 2021-12-30

## Test Results

Test Item	Conditions	Duration	Quantity	Rejects
<b>TEST</b> Pre- and Post-Stress Electrical Test	T <sub>a</sub> = 25 °C	N/A	all parts	see below
<b>PC</b> Preconditioning	JESD22A-113 Bake T <sub>a</sub> = 125 °C Soak T <sub>a</sub> = 85 °C, RH = 85% Reflow soldering	24 hours 168 hours 3 cycles	308Pcs	0
<b>HTRB</b> High Temperature Reverse Bias	JESD22-A108 T <sub>j</sub> = T <sub>jmax</sub> , V <sub>R</sub> > 80% V <sub>CEO</sub>	1000 hours	77Pcs	0
<b>TC</b> Temperature Cycling	JESD22-A104 -55 °C to 150 °C	1000 cycles	77Pcs	0
<b>AC</b> Autoclave	JESD22-A102 T <sub>a</sub> = 121 °C, RH = 100 % Pressure = 2atm	96 hours	77Pcs	0
<b>H3TRB</b> High Humidity High Temperature Reverse Bias	JESD22-A101 T <sub>a</sub> = 85 °C, RH = 85%, V <sub>R</sub> > 80 % V <sub>CEO</sub>	1000 hours	77Pcs	0
<b>IOL</b> Intermittent Operating Life	MIL-STD-750 Method 1037 t <sub>on</sub> = t <sub>off</sub> , devices powered to insure ΔT <sub>j</sub> = 100 °C for 15000 cycles	1000 hours	77Pcs	0
<b>ESD</b> <b>Human Body Model</b>	JESD22-A114 2 KV	N/A	30Pcs	0
<b>RSH</b> Resistance to Solder Heat	JESD22-A111 / JESD22-B106 260 °C ± 5 °C	10 s	30Pcs	0
<b>SD</b> Solderability	J-STD-002 245 °C ± 5 °C	3 s	10Pcs	0
<b>LTSL</b> Low Temperature Storage Life	JESD22-A119 T <sub>a</sub> ≤ -55 °C	1000 hours	32Pcs	0
<b>HTSL</b> High Temperature Storage Life	JESD22-A103 T <sub>a</sub> ≥ 150 °C	1000 hours	77Pcs	0