

# **Process Change Notification (PCN)**

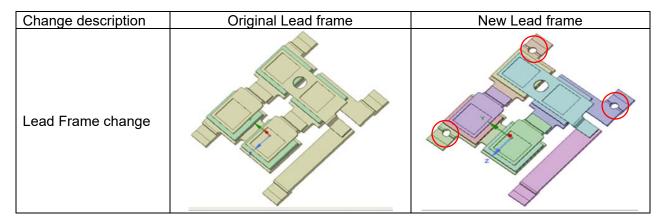
Notification number:	071224-1				
Notification date:	12 Jul 2024				
Proposed implementation date:	<b>12 Oct 2024</b> (90 days notification before change, according to JEDEC standard)				
Product type affected:	Please refer to table 1 in Appendix 1.				
Change Category	Package design structure (Lead frame).				
Change Classification	Minor				
Change description:	Optimized lead frame design for TBS package by adding circular holes at key positions in the original lead frame to enhance product stress resistance. Full electrical characterization and high reliability testing has been completed to ensure there is no change to device functionality or electrical specifications in the datasheet.				
Reason for change:	To enhance product quality.				
Deposition of old product	N/A				
Identification of Changed product:	DC 2441 onwards				
Contact person:	Please contact your respective Account manager (AM) / Inside sales representative (ISR/CSR) if you have further query.				
Approved by:	Jason Gao (Director of Engineering) Steve Zhang (Director of Supply Chain) Seaman Wu (Director of Quality) Pamela Cheng (General Manager)				



## Appendix 1: Table 1

Product type affected							
TBS20A-TP	TBS20B-TP	TBS20D-TP	TBS20G-TP	TBS20J-TP	TBS20K-TP		
TBS20M-TP	TBS22A-TP	TBS22B-TP	TBS22D-TP	TBS22G-TP	TBS22J-TP		
TBS22K-TP	TBS22M-TP	TBS30A-TP	TBS30B-TP	TBS30D-TP	TBS30G-TP		
TBS30J-TP	TBS30K-TP	TBS30M-TP	RTBS30M-TP	TBS30KL-TP			

## **Change description**



Note: The appearance and package dimensions have not changed



## Reliability test report:

Part Number: TBS30M-TP Test Results : PASS

Test Item	Conditions	Duration	Quantity	Reject
TEST				
Pre- and Post-Stres Electrical Test	s T <sub>a</sub> = 25 °C	N/A	all parts	see below
	JESD22A-113			
	1.Temperature Cycling:-40 ℃~60 ℃,	5Cycles;		
* Pre-conditioning	2.Bake:125 ℃,	24 hours;	308Pcs	0
	$3.1$ Moisture Soak:85 $^{\circ}\!$	168hours	0001 00	0
	3.2 Moisture Soak:30 $^{\circ}$ C , 60%RH for MSL3;	192hours		
	4. Reflow*3Cycles:260°C	3Cycles		
HTRB	MIL-STD-750			
High Temperature	Method 1038	1000 hours	77Pcs	0
Reverse Bias	$T_j = T_{jmax}$ , 80% VR			
тс	JESD22-A104			
Temperature Cycling	-55℃ (+0,-10)/15Min~	1000Cycles	77Pcs	0
1 -7 -	150(+15,-0)/15Min,	(500hours)		
AC	JESD22-A102			
Autoclave	$T_a$ = 121 °C±2°C, RH = 100 %, 15psig	96 hours	77Pcs	0
H3TRB	JESD22-A101			
High Humidity High Temperature Revers	$T_a = 85 \ ^{\circ}C\pm 2 \ ^{\circ}C \ , \ \ RH = 85\%\pm 5\%,$ e Bias 80 % VR (VR MAX=100V)	1000 hours	77Pcs	0
	MIL-STD-750 Method 1037			
IOL	ON 2Min/OFF 2min, devices powered	15000 cycles	77Pcs	0
Intermittent Operatir	ng Life to insure ,ΔT <sub>j</sub> =≥100 °C	(1000 hours)		
RSH	JESD22-B106		200	
Resistance to Solder	Heat 260 °C (+5, -0)	10 s	30Pcs	0
SD	J-STD-002	3 s	10D	0
Solderability	235 °C ± 5 °C	JS	10Pcs	U
HTSL	JESD22-A103			
High Temperature		1000 hours	77Pcs	0
Storage Life	TstgMax			



Date: 12 Jul 2024

PCN #: 071224-1

PCN Title: Optimized lead frame design for TBS package.

Dear Customer.

This is a PCN announcement to the above-mentioned product which is/are offered by Micro Commercial Components Corp (MCC). We would appreciate your acknowledgement of receipt of this notification within 30 days of the date of this PCN to your local ISR, sales representative. Please refer to the attached document for more information (including implementation date / product date code of this change). If you have any questions or concerns related to this PCN, please contact your local sales representative / ISR for support. Sincerely, MCC PCN Team

Thank you.

Yours sincerely,

**PCN Team**