



Date: May 12 , 2022

PCN No#: 051222-1

PCN Title: Add a new lead frame source for SOT-523 and SOT-723 package

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	PCN No
May 12, 2022	May 12, 2022	Major	051222-1
TITLE			
Add a new lead frame source for SOT-523 and SOT-723 package			
DESCRIPTION OF CHANGE			
To improve our current lead time of SOT-523 and SOT-723 package mosfet, MCC will add a new lead frame source. 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.			
IMPACT			
No change in datasheet electrical parameters and product performance. Table A: Appearance comparison; Table B: Dimension comparison			
PRODUCTS AFFECTED			
SI3134KE-TP SI3134K-TP SI3139K-TP			
WEB LINKS			
Terms And Conditions:	https://www.mccsemi.com/Home/TermsAndConditions		
For More Information Contact:	https://www.mccsemi.com/Contact/Index		
Products:	https://www.mccsemi.com/ProductCategories		
DISCLAIMER			
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 - Appearance comparison

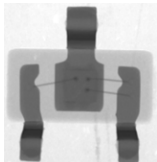
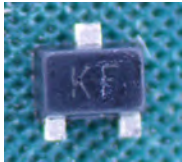
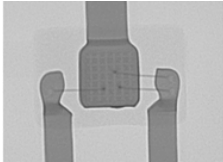
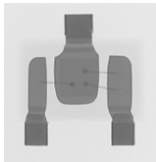
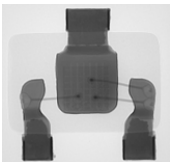
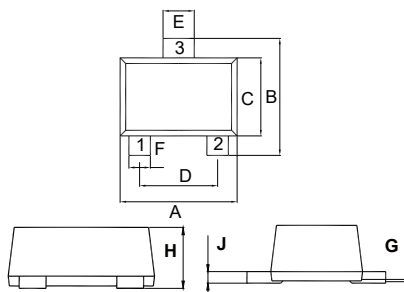
Product	Item	Current	New
SI3134KE-TP	Marking		
	X-Ray		
SI3134K-TP	Marking		
	X-Ray		
SI3139K-TP	Marking		
	X-Ray		

Table B - Dimension comparison

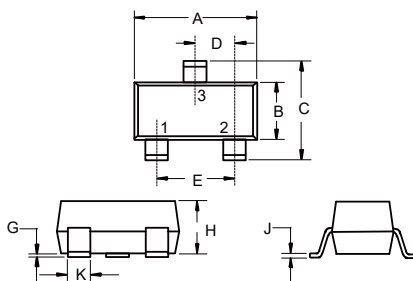
SOT-723



DIM	INCHES		MM		NOTE	Actual measurement
	MIN	MAX	MIN	MAX		
A	0.043	0.051	1.10	1.30		1.189
B	0.043	0.051	1.10	1.30		1.188
C	0.028	0.035	0.70	0.90		0.803
D	0.031		0.80		TYP.	0.805
E	0.009	0.017	0.22	0.42		0.249
F	0.005	0.013	0.12	0.32		0.236
G	0.000	0.002	0.00	0.05		0.022
H	0.017	0.021	0.43	0.54		0.444
J	0.003	0.006	0.08	0.15		0.109

new lead frame source for SOT-723 package:SI3134K-TP,SI3139K-TP

SOT-523



DIM	INCHES		MM		NOTE	Actual measurement
	MIN	MAX	MIN	MAX		
A	0.059	0.067	1.50	1.70		1.61
B	0.030	0.033	0.75	0.85		0.81
C	0.057	0.069	1.45	1.75		1.62
D	0.020		0.50		TYP.	0.502
E	0.035	0.043	0.90	1.10		1.00
G	0.000	0.004	0.00	0.10		0.05
H	0.024	0.031	0.60	0.80		0.76
J	0.004	0.008	0.10	0.20		0.15
K	0.006	0.014	0.15	0.35		0.32

new lead frame source for SOT-523 package:SI3134KE-TP

Reliability Report

Part Number:SI3134KE-TP

Date: 2022-04-20

Test Results

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

Reliability Report

Part Number:SI3134K-TP

Date: 2022-04-22

Test Results

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

Reliability Report

Part Number:SI3139K-TP

Date: 2022-04-22

Test Results

Test Item	Conditions	Duration	Quantity	Rejects
TEST				
Pre- and Post-Stress Electrical Test	T _a = 25 °C	N/A	all parts	see below
PC	JESD22A-113			
Preconditioning	Bake T _a = 125 °C Soak T _a = 85 °C, RH = 85% Reflow soldering	24 hours 168 hours 3 cycles	308Pcs	0
HTRB	JESD22-A108			
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HTSL	JESD22-A103			
High Temperature Storage Life	T _a ≥ 150 °C	1000 hours	77Pcs	0
HTGB	JESD22-A108			
High Temperature Gate Bias	150 °C , 100% VGS	1000 hours	77Pcs	0