

**PCN # 196**  
**Notification Date:**  
**September 24, 2020**

## Product / Process Change Notice

**Parts Affected:**

All products manufactured in the SMAFL case.

**Extent of Change:**

Change in internal lead frame to increase contact area with silicon die and enhance consistency in forward surge and forward voltage performance. A small notch on lead termination enhances solderability during reflow processes.

**Reason for Change:**

In order to enhance manufacturability and minimize potential supply disruption, Central Semiconductor has made changes to the internal lead frame design of the subject devices. Electrical performance and overall mechanical outline of the package are unchanged. A small notch may be observed at the termination ends. This does not change the overall dimension of the terminations and it enhances solderability.

**Effect of Change:**

This change does not affect the fit, form or function of the devices.

**Qualification:**

Test	Condition	Duration	Failure rate
<b>Pre Conditioning (PC) (SMD qualification parts before test TC, AC, H3TRB, IOL and RSH)</b>	1. TCT -55~+150 °C ,5 cycle 2. Bake 125 +5/-0 °C , 24hours 3. Temperature humidity 85°C/85%RH, 168hours 4. Reflow 3 times	1 Cycle	0/77 3 Lots
<b>Temperature Cycling (TC)</b>	TA= -55+0°C/-10°C 10min(Min) TA= +150+15°C/-0°C 10min(Min) Transfer time less than 1min. The load should reach temp. within 15min	1000 Cycles	0/77 3 Lots
<b>High Humidity / High Temperature Reverse Bias (H3TRB)</b>	TA=85°C, RH=85% V=80%VR (Max=100V)	1000 Hours	0/77 3 Lots
<b>Resistance to Solder Heat (RSH)</b>	T =260°C ±5°C Dwell time = 10 sec.	1 Cycle	0/30 3 Lots
<b>Intermittent Operation Life (IOL)</b>	ΔTJ ≥100°C On time: 2mins at least, Off time: 2mins at least	15,000 Cycles	0/77 3 Lots
<b>Autoclave (AC)</b>	Temperature = 121°C ± 2°C; relative humidity = 100%; vapor pressure = 29.7 psia (15psig)	96 Hours	0/77 3 Lots

**PCN # 196**  
**Notification Date:**  
**September 24, 2020**

<b>Temperature Humidity Storage (THS)</b>	TA=85°C, RH=85%	1000 Hours	0/77 3 Lots
<b>Solderability (SD)</b>	Temperature of solder Pb free: POT=245±5°C Solder immersion time=5±0.5 sec Dipping depth= within 1.27mm of the body.	1 Cycle	0/10 3 Lots
<b>Thermal Shock Test (TST)</b>	TA=0°C (5 min) ~ +100°C (5 min)	100 Cycles	0/77 3 Lots
<b>High Temp. Storage Life (HTSL)</b>	TA= +150°C	1000 Hours	0/77 3 Lots
	TA=25°C I=IO +/-10% DC Supply	168 Hours	0/77 3 Lots

**Effective Date of Change:**

Existing inventory will be shipped until depleted.

**Sample Availability:**

Please contact your salesperson or manufacturer's representative for samples.

**Part Numbers Affected:**

Rectifiers

CMR1H-04MFL	CMR1S-04MFL	CMR2-04MFL	CMR2-06MFL	CMR2-08MFL	CMR2-10MFL
-------------	-------------	------------	------------	------------	------------

Schottky Rectifiers

CMSH2-40FL	CMSH3-100MFL	CMSH3-150MFL	CMSH3-200MFL
------------	--------------	--------------	--------------

Transient Voltage Suppressors (TVS)

C4SMAFL13A	C4SMAFL24A	C4SMAFL45A	C4SMAFL75A	C4SMAFL150A
C4SMAFL14A	C4SMAFL26A	C4SMAFL48A	C4SMAFL78A	C4SMAFL160A
C4SMAFL15A	C4SMAFL28A	C4SMAFL51A	C4SMAFL85A	C4SMAFL170A
C4SMAFL16A	C4SMAFL30A	C4SMAFL54A	C4SMAFL90A	
C4SMAFL17A	C4SMAFL33A	C4SMAFL58A	C4SMAFL100A	
C4SMAFL18A	C4SMAFL36A	C4SMAFL60A	C4SMAFL110A	
C4SMAFL20A	C4SMAFL40A	C4SMAFL64A	C4SMAFL120A	
C4SMAFL22A	C4SMAFL43A	C4SMAFL70A	C4SMAFL130A	



145 Adams Avenue, Hauppauge, NY 11788 USA

Tel: (631) 435-1110 • Fax: (631) 435-1824

[www.centralsemi.com](http://www.centralsemi.com)

<mailto:processchange@centralsemi.com>

<https://www.centralsemi.com/process-change-notices>

**PCN # 196**

**Notification Date:**

**September 24, 2020**

As per JEDEC standard JESD46, Customer Notification of Product/Process Changes by Solid-State Suppliers, a lack of acknowledgement of a PCN within thirty (30) days constitutes acceptance of the change.

The undersigned acknowledges and accepts Central Semiconductor's Product/Process Change Notification (PCN).

Company Name:	
Address:	
Address:	
Printed Name:	
Title:	
Signature:	
Date:	