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**PCN #181**  
**Notification Date:**  
**March 3, 2020**

## Product / Process Change Notice

**Parts Affected:**

The following TO-92 products are affected:

**Part Numbers:**

MPS6507	MPS6511	MPS6541	PN3563
PN3563-18	PN3563-5	PN5127	PN5130
PN5130-18	PN5132	PN918	2N5770
CEN553	CEN758		

**Extent of Change:**

Silver epoxy die attach process has been qualified as an additional die attach method for the devices above.

**Reason for Change:**

This change will help insure an uninterrupted flow of product and provide increased supply chain management flexibility.

**Effect of Change**

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

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**Qualification:**

P/N: 2N5770

Package: TO-92

No.	Test	Conditions (Reference standards are in bold)	Qty	Pass/Fail	Test Results
<b>1</b>	<b>Device Life Tests</b>				
a	<b>High Temperature Reverse Bias (HTRB)</b>	T=125°C, t = 1000 hours Bias Conditions per Device Datasheet <b>JESD22-A108</b>	77	Pass	77/77
b	<b>High Temperature Storage Life (HTSL)</b>	T=150°C, t = 1000 hours <b>JESD22-A103</b>	77	Pass	77/77
C	<b>Thermal Shock</b>	100 cycles, dwell time = 5 min, -65°C to +150°C, max transfer time = 20 sec. <b>JESD22-A106</b>	77	Pass	77/77
D	<b>Temperature Cycling (TC)</b>	-65°C to +150°C, T <sub>dwell</sub> = 15min, 1000 cycles <b>MIL-STD-750 TM1051</b>	77	Pass	77/77
E	<b>Die Shear</b>	Apply force sufficient to shear the die from its mounting. <b>MIL-STD-750 TM2017, Condition A</b>	5	Pass	5/5
F	<b>Resistance To Solder Shock</b>	Pb free: T = 270°C ± 5°C, Dwell = 7s + 2/-0 Thru-hole devices submerge to case, <b>JESD22-B106</b>	5	Pass	5/5
G	<b>Solderability</b>	Steam Age: T=93°C +3/-5°C. Pb-free Dip: T=245°C +/-5°C, Dwell time = 5+/-0.5sec <b>MIL-STD-750 TM2026</b>	15	Pass	15/15
H	<b>Temperature Humidity Bias (THB)</b>	T = 85°C, RH = 85%, t = 1000 hrs <b>JESD22-A101.</b>	77	Pass	77/77
I	<b>Autoclave</b>	Temperature = 121°C ± 2°C; relative humidity = 100%; vapor pressure, 29.7 psia (15 psig), t = 96 hrs. <b>JESD22-A102</b>	77	Pass	77/77



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**Sample Availability:**

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

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:	
Printed Name:	
Title:	
Signature:	
Date:	