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PCN #156 Revision 1
Revision Notification Date: 3 March 2016
Original Notification Date: 22 Dec 2015

Product / Process Change Notice

Parts Affected:

Chip process CP319, NPN silicon power transistors, wafers, and bare die.

Extent of Change:

The CP319 wafer process has been discontinued and replaced with the CP212 wafer process. See figures 1 and 2 for details.

Reason for Change:

New wafer process provides an improved and consistent yield. Revision 1 of this PCN was released to include additional "Part Numbers Affected" on the following page that were not included in the initial PCN release.

Effect of Change:

The wafer process meets all electrical specifications of the individual devices listed on the following page.

Effective Date of Change:

January 11, 2016

Sample Availability:

Please contact Salesperson or Manufacturer's Representative.

Qualification Tests:

Test	Condition	Failure rate
Resistance to Solder Shock	T =260°C ±5°C Dwell time = 10 sec. **JESD22-B106**	0/77
High Temperature Storage Life/ bake test.	Specified temperature (-0/+10)°C, 1000 hours. **JESD22-A103**	0/77
Temperature Cycling	T= -65°C to +150°C 1000 cycles. Dwell time = 15 min. **JESD22-A104**	0/77
High Temperature Reverse Bias (HTRB)	T=125°C, t=48 hours, 80% MAX rated VCB **JESD22-A108**	0/77
Highly Accelerated Temperature and Humidity Stress Test (HAST)	T = 130°C, RH = 85%, P = 33.3 psia, and t = 96 hours. Bias conditions per device specification sheet. **JESD22-A110**	0/77
Accelerated Moisture Resistance Unbiased Autoclave	Temperature = 121°C ± 2°C; relative humidity = 100%; vapor pressure = 205kPa, 29.7 psia. t=48 hours **JESD22-A102**	0/77

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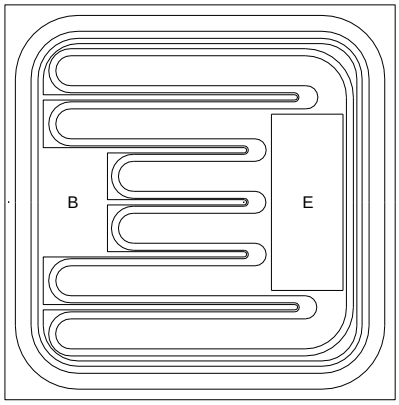
Figures:

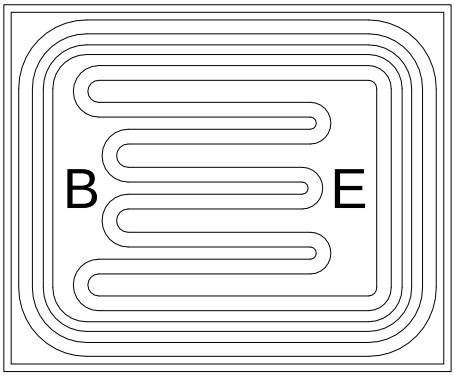
Figure 1: CP319 Chip Geometry (Discontinued)



BACKSIDE COLLECTOR R0

Wafer Diameter:	4 inch
Die Size:	87 x 87 mils
Die Thickness:	9.0 mils
Bond Pad Size (Emitter):	38 x 16 mils
Bond Pad Size (Base):	24 x 15 mils
Topside Metal:	Al (30,000Å)
Backside Metal:	Ti/Ni/Ag (11,000Å)

Figure 2: CP212 Chip Geometry



BACKSIDE COLLECTOR R1

Wafer Diameter:	4 inch
Die Size:	80 x 99 mils
Die Thickness:	12 mils
Bond Pad Size (Emitter):	48 x 13 mils
Bond Pad Size (Base):	32 x 12 mils
Topside Metal:	Al (30,000Å)
Backside Metal:	Cr/Ni/Ag (16,000Å)

Part Numbers Affected:

CJD47	2N5051
CJD50	2N5052
2N3583	CEN736
2N3584	CEN853
2N3585	CP319-CJD50-CT
2N3738	CP319-TIP47-CT
2N3739	CP319-TIP50-CT
2N4240	CP319-CZTA44HC-CT
2N4296	CP319-CZTA44HC-WN
2N4298	CP319-2N3585-WN
2N4299	CP319-2N4240-WN
2N5050	

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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:	