Central™
Semiconductor Corp.
145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com
mailto:processchange@centralsemi.com
http://www.centralsemi.com/processchange

PCN #175
Notification Date:
August 14, 2019

Product / Process Change Notice

Parts Affected:

Chip process CP147, NPN Darlington transistors, wafers and bare die

Extent of Change:

The CP147 wafer process has been discontinued and replaced with the CP247 wafer process. See figures 1 and 2 for details.

Reason for Change:

The CP147 wafer process has been replaced by the CP247 wafer process in order to enhance the manufacturing process controls and performance. In addition, this change is being made to ensure undisrupted supply of product, moving forward.

Effect of Change:

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

Qualification:

P/N: CP247 Chip Process Package: TO-3

No.		Test	Conditions (Reference standards are in bold)	Qty	Pass/Fail	Test Results
1		**Device Life Tests**				
	a	**High Temperature Reverse Bias (HTRB)**	T=125°C, t = 1000 hours Bias conditions per device datasheet **JESD22-A108**	77	Pass	77/77
	b	**High Temperature Storage Life (HTSL)**	T=150°C, t = 1000 hours **JESD22-A103**	77	Pass	77/77
	C	**Thermal Shock**	100 cycles, dwell time = 5 min, -65°C to +150°C, max transfer time = 20 sec. **JESD22-A106**	77	Pass	77/77
	D	**Temperature Cycling (TC)**	-55°C -+175°C, Tdwell = 15min, 1000 cycles	77	Pass	77/77

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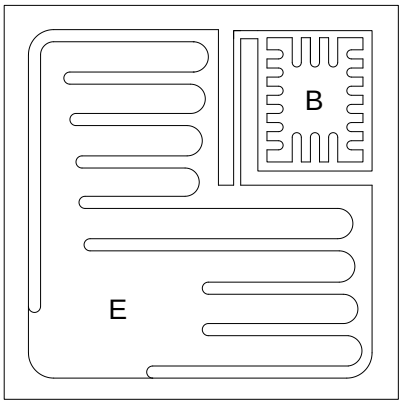
Effective Date of Change:
Existing Inventory of chip process CP147 will be shipped until depleted.

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

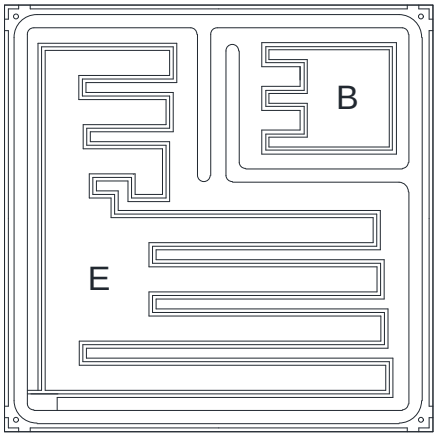
Figure 1: CP147 Chip Geometry (Discontinued)



BACKSIDE COLLECTOR R2

Wafer Diameter:	5 inch
Die Size:	195 x 195 mils
Die Thickness:	11.4 mils
Bond Pad Size (Base):	28 x 28 mils
Bond Pad Size (Emitter):	70 x 44 mils
Topside Metal:	Al (60,000Å)
Backside Metal:	Ti/Ni/Au (1,000Å/4,000Å/500Å)

Figure 2: CP247 Chip Geometry



BACKSIDE COLLECTOR R1

Wafer Diameter:	5 inch
Die Size:	211 x 211 mils
Die Thickness:	12.5 mils
Bond Pad Size (Base):	49 x 41 mils
Bond Pad Size (Emitter):	60 x 50 mi
Topside Metal:	Al (50,000Å)
Backside Metal:	Ti/Ni/Ag(1,000Å/6,000Å/10,000Å)

Part Numbers Affected:

CP147-MJ11016-CT	CP147-CEN1104-CT
CP147-MJ11016-WN	CP147-2N6284-CT
CP147-2N6284-CM	

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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:	