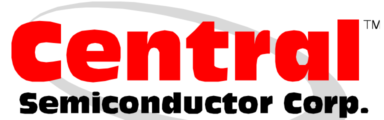


145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com
mailto:processchange@centralsemi.com
https://www.centralsemi.com/process-change-notices

PCN #179
Notification Date:
January 13, 2020

Product / Process Change Notice

Parts Affected:
Chip process CP307 and CP307V, NPN transistors, wafers, and bare die.

Extent of Change:
The CP307 and CP307V wafer processes have been discontinued and replaced with the CP327V wafer process. See Figures 1 and 2 for details.

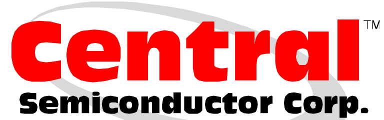
Reason for Change:
The CP307 and CP307V wafer processes have been replaced by the CP327V wafer process in order to enhance the manufacturing process controls and performance. In addition, this change is being made to ensure an undisrupted supply of product moving forward.

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

Qualification:

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.	150°C (-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=1000 hours Bias conditions per device datasheet **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 = 29.7 psia (15psig). t=96 hours **JESD22-A102**	0/77

Effective Date of Change:
January 13, 2020- Existing inventory will be shipped until depleted.


145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com
mailto:processchange@centralsemi.com
https://www.centralsemi.com/process-change-notices

PCN #179
Notification Date:
January 13, 2020

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

Figure 1: CP307, V Chip Geometry (Discontinued)		**Figure 2: CP327V Chip Geometry**	
E B BACKSIDE COLLECTOR R1		E B BACKSIDE: COLLECTOR R0	
Wafer Diameter	4 inch	Wafer Diameter	5 inch
Die Size	27.1 x 27.1 mils	Die Size	22.84 x 22.84 mils
Die Thickness	9.0, 7.1 mils	Die Thickness	7.1 mils
Bond Pad Size (Base)	5.3 x 3.8 mils	Bond Pad Size (Base)	4.7 x 4.7 mils
Bond Pad Size (Emitter)	5.3 x 6.5 mils	Bond Pad Size (Emitter)	4.7 x 4.7 mils
Topside Metal:	Al (30,000Å)	Topside Metal:	Al-Si (17,000Å)
Backside Metal:	Au-As (13,000Å)	Backside Metal:	Au (9,000Å)

Part Numbers Affected:

BCX38A	BCV47	CEN1139	CMLT6427E
CMPTA13	CMPTA14	CMPTA14E	CMPTA27
CMPT6427	CMST6427E	CXTA14	CXTA27
CZTA13	CZTA14	CZTA27	D40C7
MPSA13	MPSA14	MPSA25	MPSA27
2N5308	2N6426	2N6427	CEN-U45
CP307-CZTA27-CT	CP307-MPSA13-WN	CP307-2N5308-CT	CP307-2N5308-WN
CP307V-MPSA13-WN	CP307V-2N5308-WN		

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com
mailto:processchange@centralsemi.com
https://www.centralsemi.com/process-change-notices

PCN #179
Notification Date:
January 13, 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:	
Printed Name:	
Title:	
Signature:	
Date:	