

# Product Brief



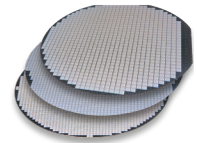
RoHS & REACH compliant

## Silicon Carbide Schottky Rectifier Die

650V | 4A, 6A, 8A, 10A, 30A

1200V | 2A, 5A, 10A, 50A

**SiC**  
SILICON  
CARBIDE



Central Semiconductor's latest Silicon Carbide Schottky rectifier die portfolio is optimized for high temperature applications. Parametrically, these devices are energy efficient as a result of low total conduction losses and minimal changes to switching characteristics as a function of temperature.

### Features

- Positive temperature coefficient
- Low reverse leakage current
- Temperature independent switching characteristics
- High operating junction temperature
- Metallization suitable for standard die attach technologies
- Top metallization optimized for wire bonding

### Applications

- Power inverters
- Industrial motor drives
- Switch-mode power supplies
- Power factor correction (PFC)
- Over-current protection

## 650V Devices

Central Item No.	I <sub>F</sub> (A) T <sub>A</sub> =25°C	V <sub>RRM</sub> (V) T <sub>A</sub> =25°C	V <sub>F</sub> (V) TYP	V <sub>F</sub> (V) MAX	Die Size (MILS)	Top Metallization (Å)	Bottom Metallization (Å)
CPC08-SIC04-650	4.0	650	1.5	1.7	39.4 X 39.4	Al - 50,000	Ti/Ni/Ag - 1,000/2,000/10,000
CPC09-SIC06-650	6.0	650	1.5	1.7	46.5 X 46.5		
CPC10-SIC08-650	8.0	650	1.5	1.7	52.8 X 52.8		
CPC07-SIC10-650	10	650	1.5	1.7	57.5 X 57.5		
CPC15-SIC10-650	10	650	1.5	1.7	57.5 X 57.5	Ni/Au - 15,000/500	
CPC11-SIC30-650	30	650	1.5	1.7	94.5 X 94.5	Al - 50,000	

## 1200V Devices

Central Item No.	I <sub>F</sub> (A) T <sub>A</sub> =25°C	V <sub>RRM</sub> (V) T <sub>A</sub> =25°C	V <sub>F</sub> (V) TYP	V <sub>F</sub> (V) MAX	Die Size (MILS)	Top Metallization (Å)	Bottom Metallization (Å)
CPC12-SIC02-1200	2.0	1200	1.4	1.6	40.9 X 50.4	Al - 50,000	Ti/Ni/Ag - 1,000/2,000/10,000
CPC05-SIC05-1200	5.0	1200	1.5	1.7	54.3 X 76.8		
CPC06-SIC10-1200	10	1200	1.4	1.6	86.6 X 86.6		
CPC14-SIC10-1200	10	1200	1.4	1.6	86.6 X 86.6	Ni/Au - 15,000/500	
CPC13-SIC50-1200	50	1200	1.5	1.7	179.5 X 179.5	Al - 50,000	

#### SPICE Models and other technical resources:

Visit [www.centalsemi.com](http://www.centalsemi.com) to download SPICE models for these devices.

#### RoHS and REACH compliance declarations

Visit the Quality section of Central's website to access.

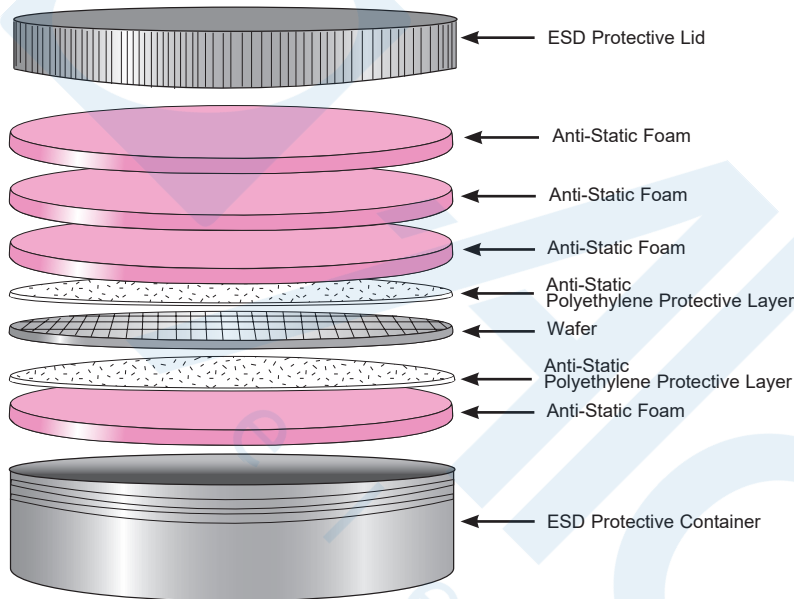
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## Packing Information

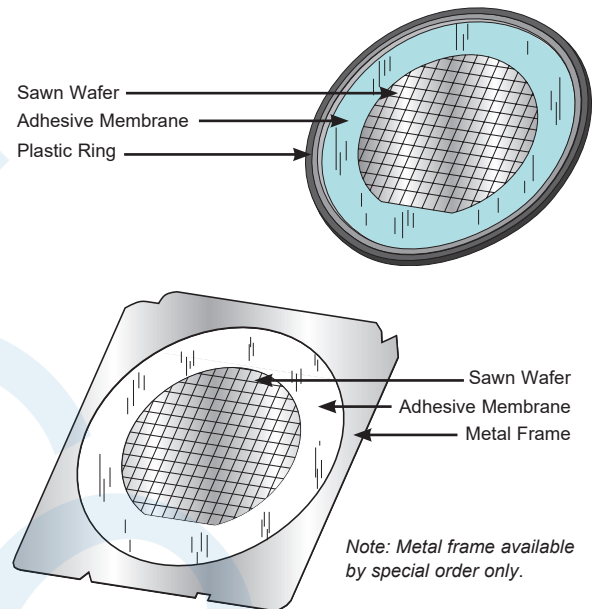
### Wafer Form

- 100% tested with rejects inked
- Use -WN suffix when ordering



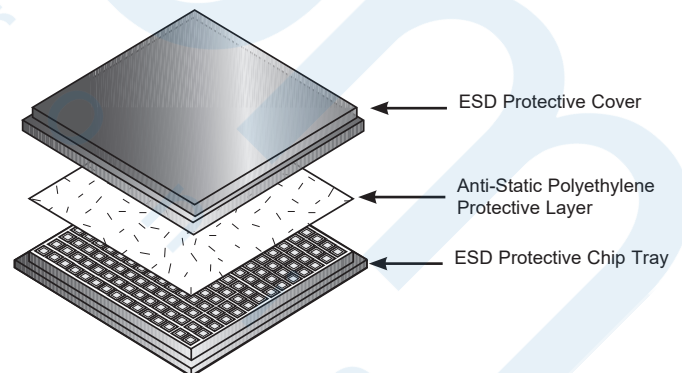
### Sawn Wafer

- Available on metal frame or plastic ring
- 100% tested with rejects inked.
- Mounted on adhesive membrane on a metal frame or plastic ring.
- Use -WR suffix when ordering for plastic ring.  
*Metal frame (-WS suffix) available by special order only.*



### Chip Form

- Waffle Packed.
- Use: **-CT**, **-CM**, suffix when ordering.
  - **-CT** (100% tested with rejects removed).
  - **-CM** (100% tested and 100% visually inspected per MIL-STD-750, [method 2072 transistors] [method 2073 diodes] with rejects removed).



For more information on Central's products and potential solutions:

Call us at: **1.631.435.1110**

Or view online: [www.centrasemi.com/featured-products](http://www.centrasemi.com/featured-products)



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