

CMPH-3  
 CMPH-3A  
 CMPH-3C  
 CMPH-3S

**SURFACE MOUNT SILICON  
 SCHOTTKY DIODES**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPH-3 series devices are silicon Schottky diodes designed for surface mount fast switching applications requiring a low forward voltage drop.



**SOT-23 CASE**

The following configurations are available:

CMPH-3 SINGLE  
 CMPH-3A DUAL, COMMON ANODE  
 CMPH-3C DUAL, COMMON CATHODE  
 CMPH-3S DUAL, IN SERIES

**MARKING CODE: D95**  
**MARKING CODE: DB1**  
**MARKING CODE: DB2**  
**MARKING CODE: DA5**

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Continuous Forward Current	I <sub>F</sub>	100	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	350	mA
Peak Forward Surge Current, tp=10ms	I <sub>FSM</sub>	750	mA
Power Dissipation	P <sub>D</sub>	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	357	°C/W

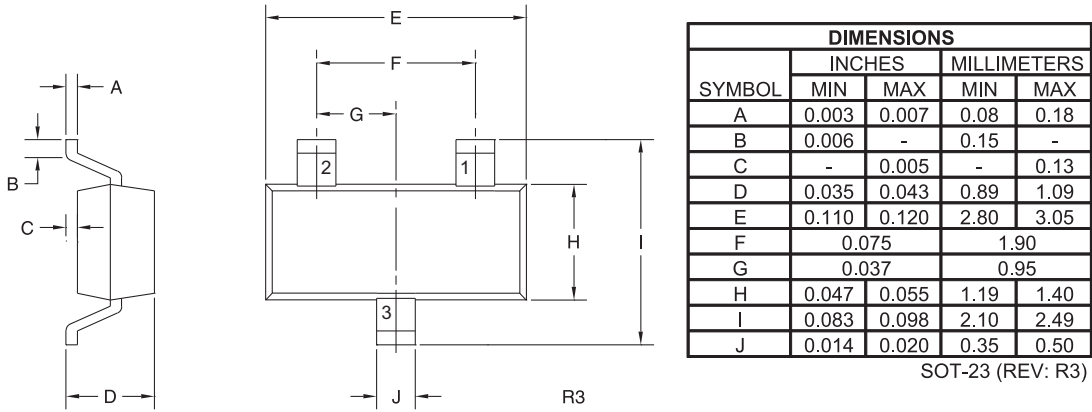
**ELECTRICAL CHARACTERISTICS PER DIODE: (T<sub>A</sub>=25°C unless otherwise noted)**

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =25V		90	500	nA
I <sub>R</sub>	V <sub>R</sub> =25V, T <sub>A</sub> =100°C		25	100	μA
BV <sub>R</sub>	I <sub>R</sub> =100μA	30			V
V <sub>F</sub>	I <sub>F</sub> =2.0mA		0.29	0.33	V
V <sub>F</sub>	I <sub>F</sub> =15mA		0.37	0.45	V
V <sub>F</sub>	I <sub>F</sub> =100mA		0.51	1.00	V
C <sub>J</sub>	V <sub>R</sub> =0, f=1.0MHz			20	pF
t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =1.0mA, R <sub>L</sub> =100Ω			5.0	ns

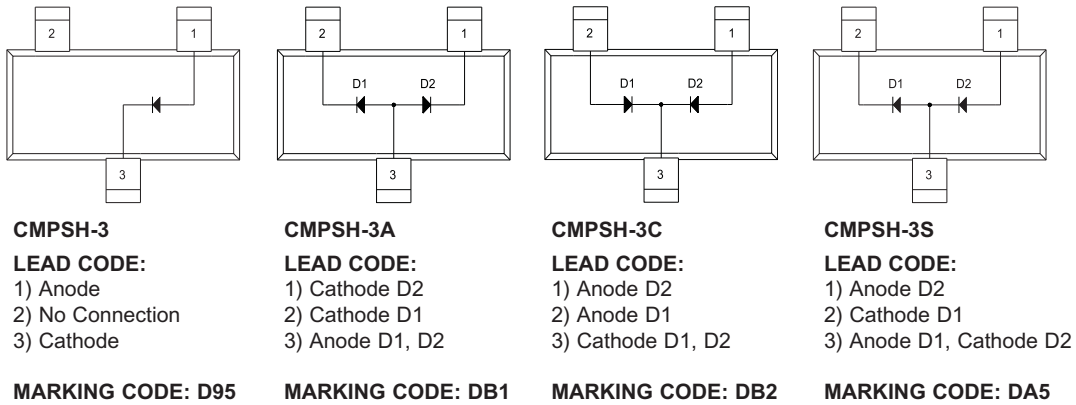
**CMP SH-3**  
**CMP SH-3A**  
**CMP SH-3C**  
**CMP SH-3S**  
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**SCHOTTKY DIODES**



**SOT-23 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATIONS**



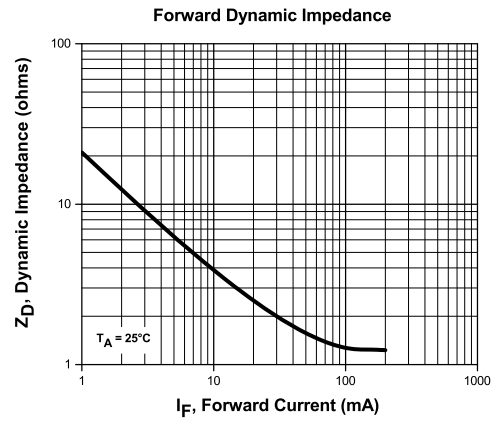
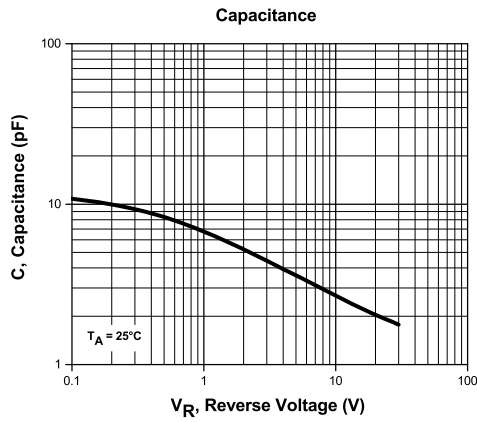
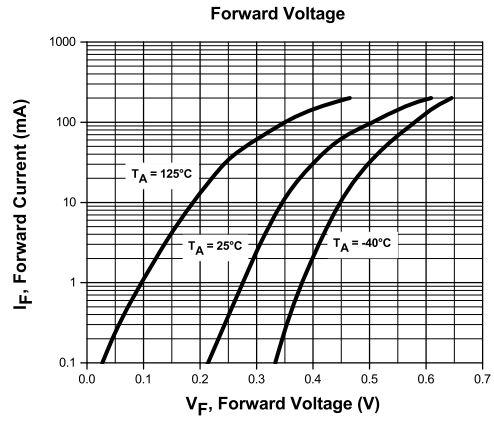
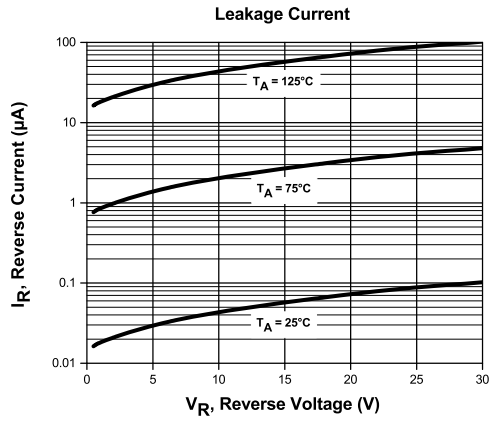
R8 (8-September 2016)

CMPH-3  
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TYPICAL ELECTRICAL CHARACTERISTICS



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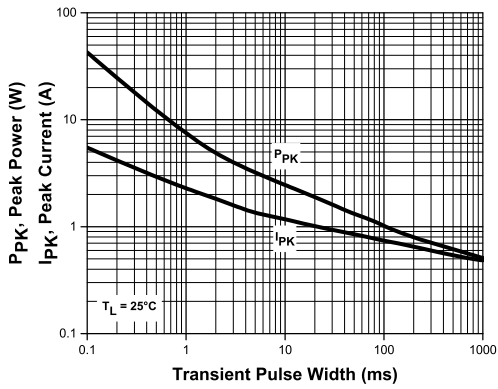
CMP SH-3  
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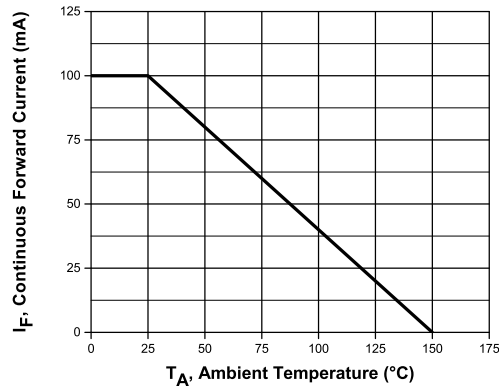


TYPICAL ELECTRICAL CHARACTERISTICS

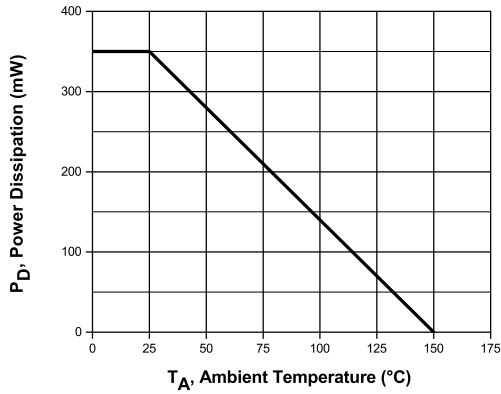
Transient Peak Power and Peak Current Capacity



Current Derating



Power Derating



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## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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