

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:** ( $T_A=25^\circ\text{C}$ )

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	30	V
Continuous Forward Current	$I_F$	100	mA
Peak Repetitive Forward Current	$I_{FRM}$	350	mA
Peak Forward Surge Current, $t_p=10\text{ms}$	$I_{FSM}$	750	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^\circ\text{C/W}$

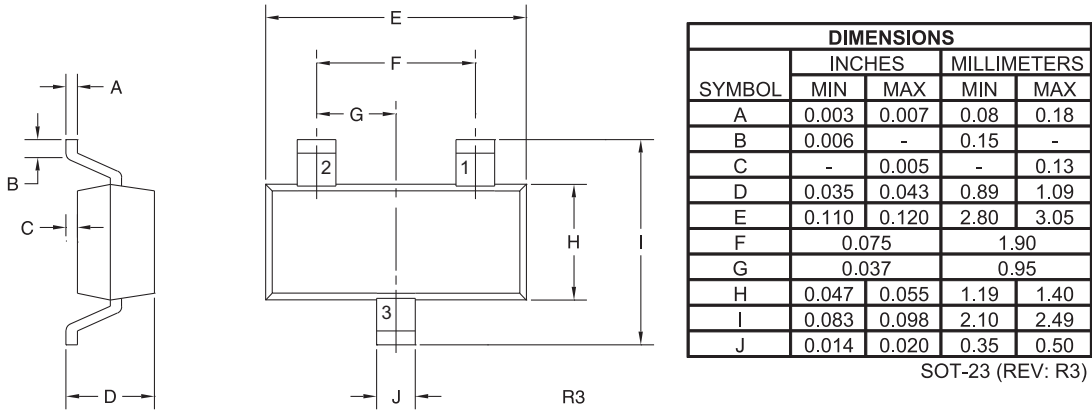
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=25\text{V}$		90	500	nA
$I_R$	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	30			V
$V_F$	$I_F=2.0\text{mA}$		0.29	0.33	V
$V_F$	$I_F=15\text{mA}$		0.37	0.45	V
$V_F$	$I_F=100\text{mA}$		0.51	1.00	V
$C_J$	$V_R=0, f=1.0\text{MHz}$			20	pF
$t_{rr}$	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

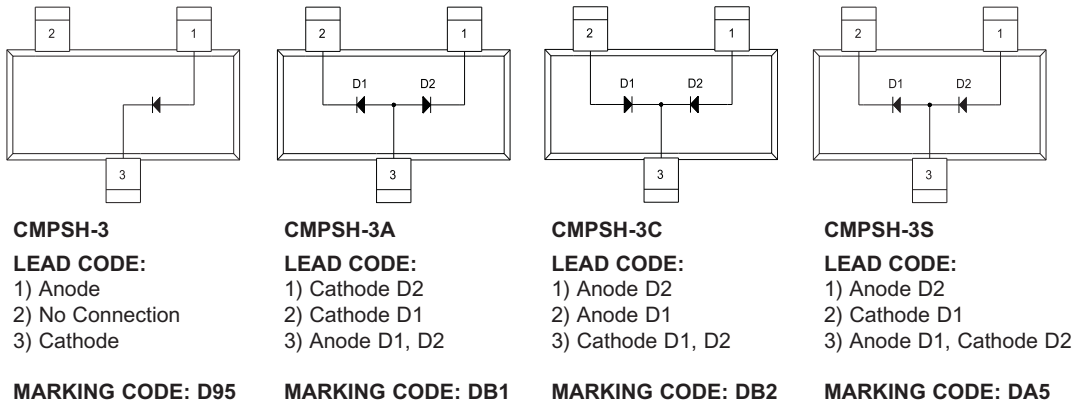
**CMP SH-3**  
**CMP SH-3A**  
**CMP SH-3C**  
**CMP SH-3S**  
**SURFACE MOUNT SILICON**  
**SCHOTTKY DIODES**



**SOT-23 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATIONS**



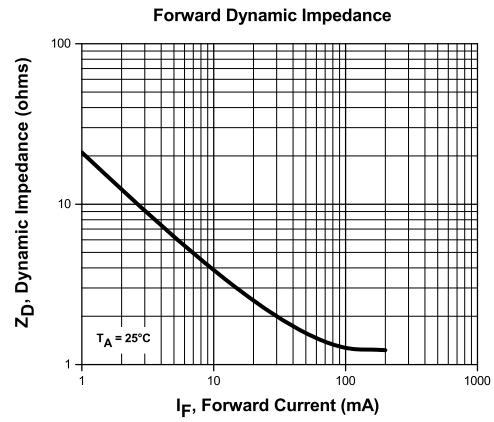
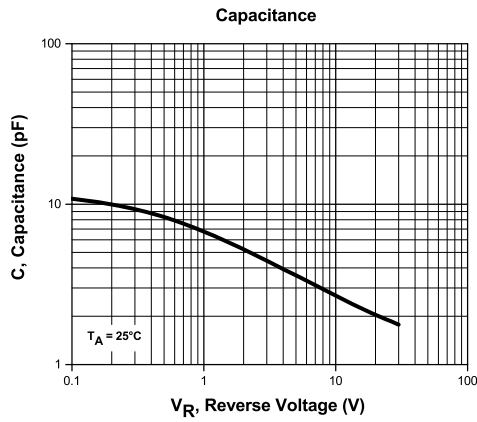
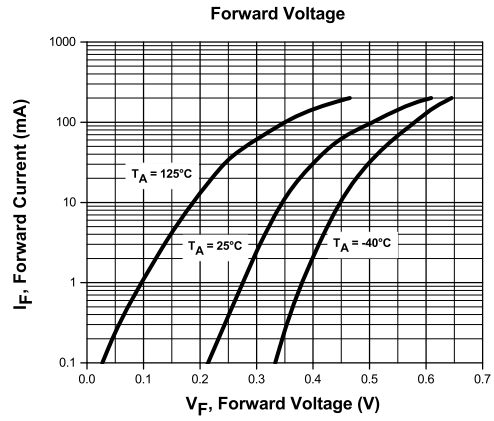
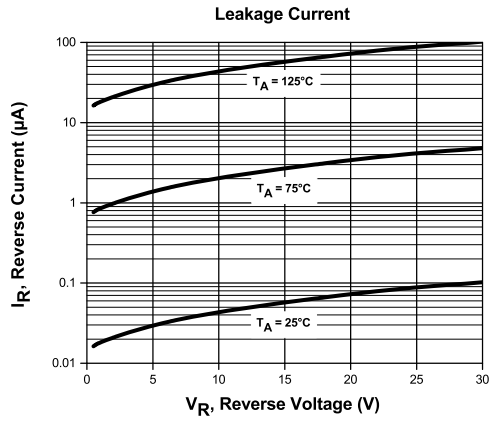
R8 (8-September 2016)

CMPH-3  
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TYPICAL ELECTRICAL CHARACTERISTICS



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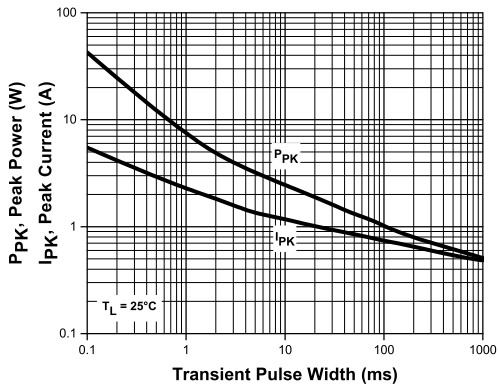
CMP SH-3  
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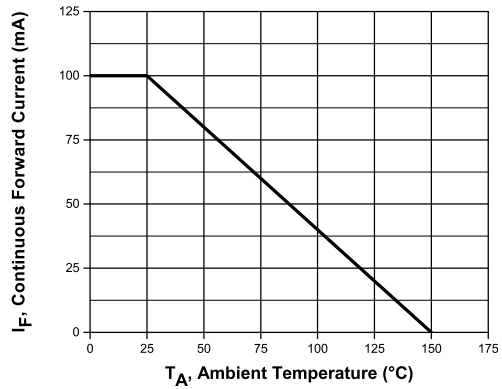


TYPICAL ELECTRICAL CHARACTERISTICS

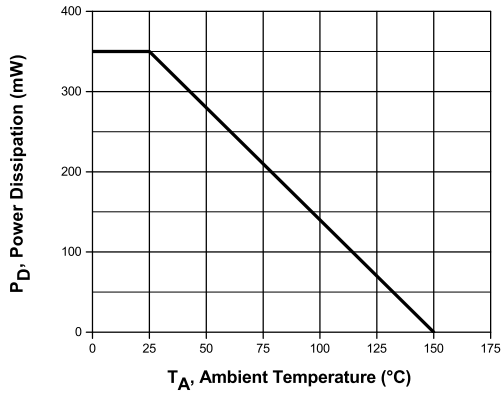
Transient Peak Power and Peak Current Capacity



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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