

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

**SURFACE MOUNT SILICON
SCHOTTKY DIODES**



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	θ_{JA}	357	$^\circ\text{C/W}$

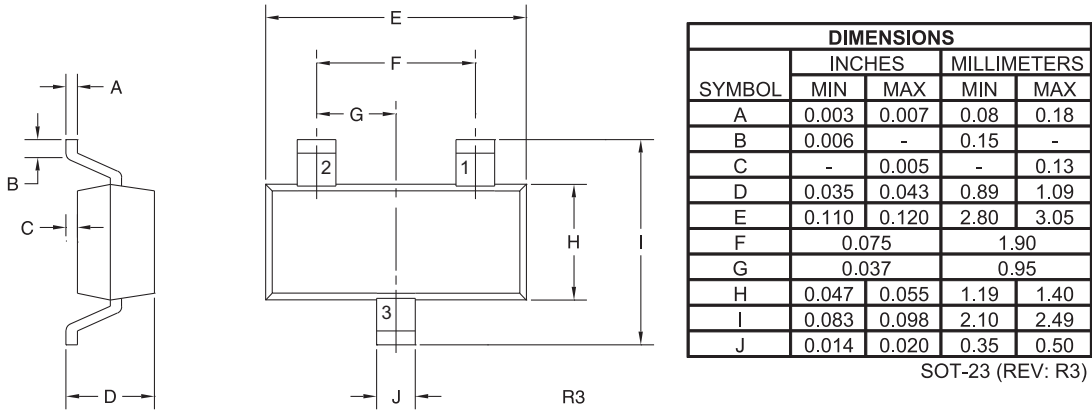
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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	μA
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

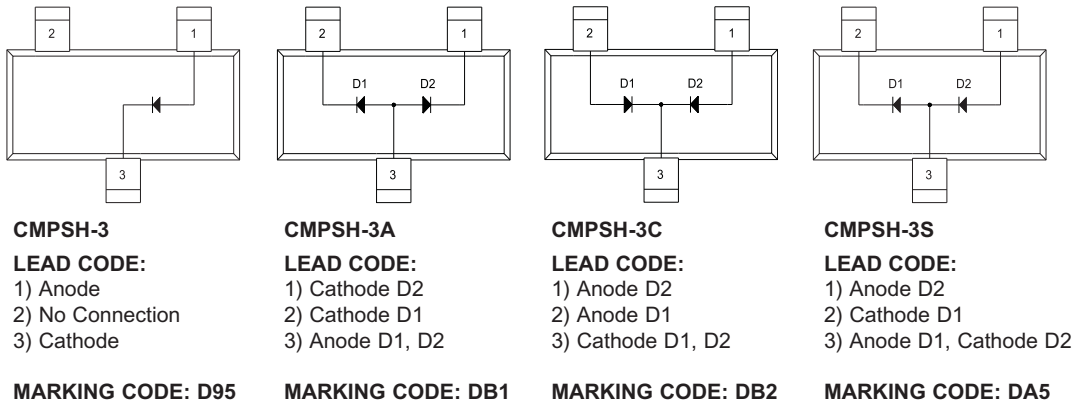
CMP SH-3
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SOT-23 CASE - MECHANICAL OUTLINE



PIN CONFIGURATIONS



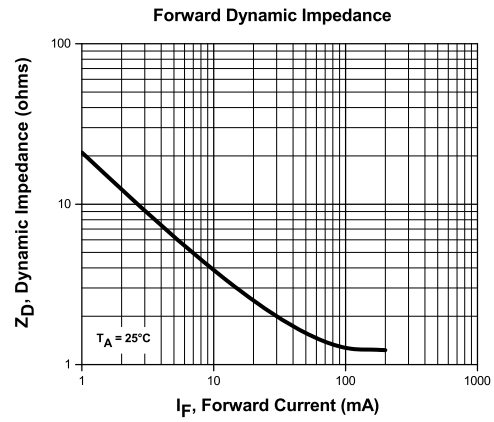
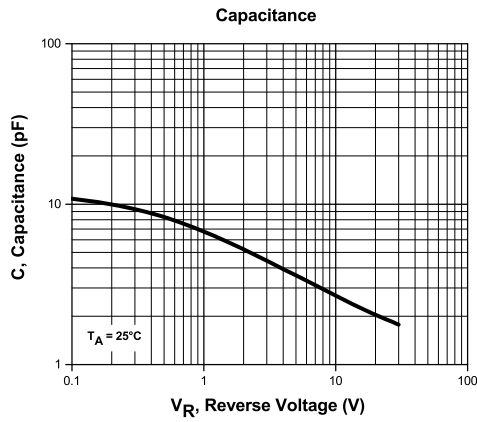
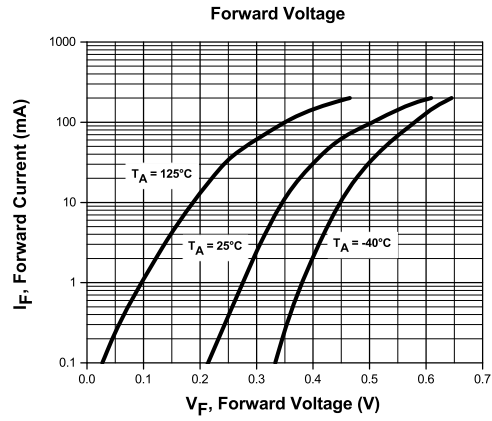
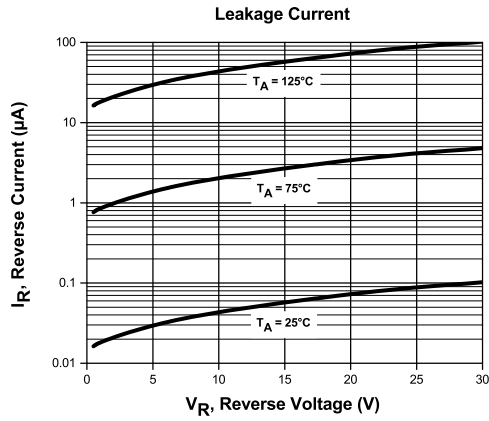
R8 (8-September 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



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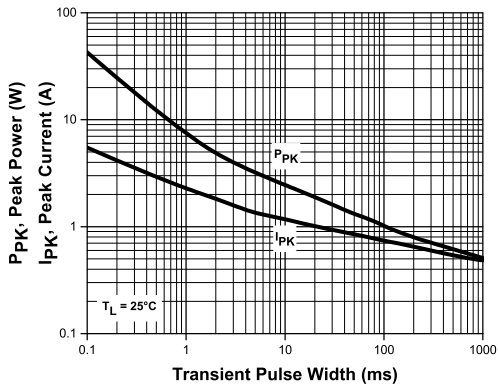
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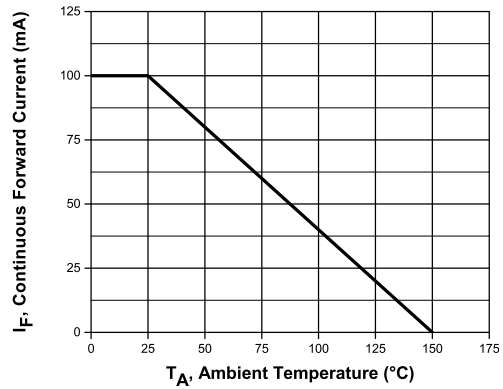


TYPICAL ELECTRICAL CHARACTERISTICS

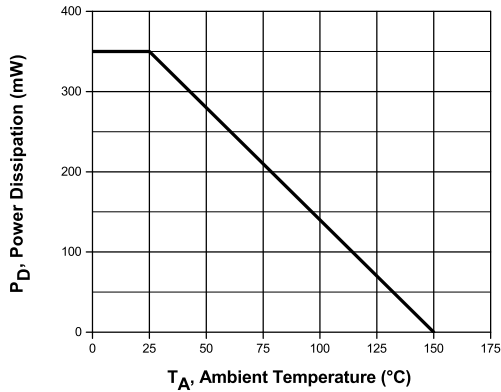
Transient Peak Power and Peak Current Capacity



Current Derating



Power Derating



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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