

CMPSH-3E
CMPSH-3AE
CMPSH-3CE
CMPSH-3SE

ENHANCED SPECIFICATION
SURFACE MOUNT SILICON
SCHOTTKY DIODES



www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPSH-3E series devices are enhanced versions of the CMPSH-3 series of silicon Schottky diodes in an SOT-23 surface mount package.

FEATURED ENHANCED SPECIFICATIONS:

- ◆ I_F from 100mA MAX to 200mA MAX
- ◆ BV_R from 30V MIN to 40V MIN
- ◆ V_F from 1.0V MAX to 0.8V MAX

CMPSH-3E: SINGLE
CMPSH-3AE: DUAL, COMMON ANODE
CMPSH-3CE: DUAL, COMMON CATHODE
CMPSH-3SE: DUAL, IN SERIES

MARKING CODE: D95E
MARKING CODE: DB1E
MARKING CODE: DB2E
MARKING CODE: DA5E

MAXIMUM RATINGS: ($T_A=25^\circ C$)

	SYMBOL		UNITS
◆ Peak Repetitive Reverse Voltage	V_{RRM}	40	V
◆ Continuous Forward Current	I_F	200	mA
Peak Repetitive Forward Voltage	I_{FRM}	350	mA
Forward Surge Current, $t_p=10ms$	I_{FSM}	750	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=25V$		90	500	nA
I_R	$V_R=25V, T_A=100^\circ C$		25	100	µA
◆ BV_R	$I_R=100\mu A$	40	50		V
V_F	$I_F=2.0mA$		0.29	0.33	V
◆ V_F	$I_F=15mA$		0.37	0.42	V
◆ V_F	$I_F=100mA$		0.51	0.80	V
◆◆ V_F	$I_F=200mA$		0.65	1.0	V
C_J	$V_R=1.0V, f=1.0MHz$		7.0		pF
t_{rr}	$I_F=I_R=10mA, I_{rr}=1.0mA, R_L=100\Omega$			5.0	ns

◆ Enhanced specification.

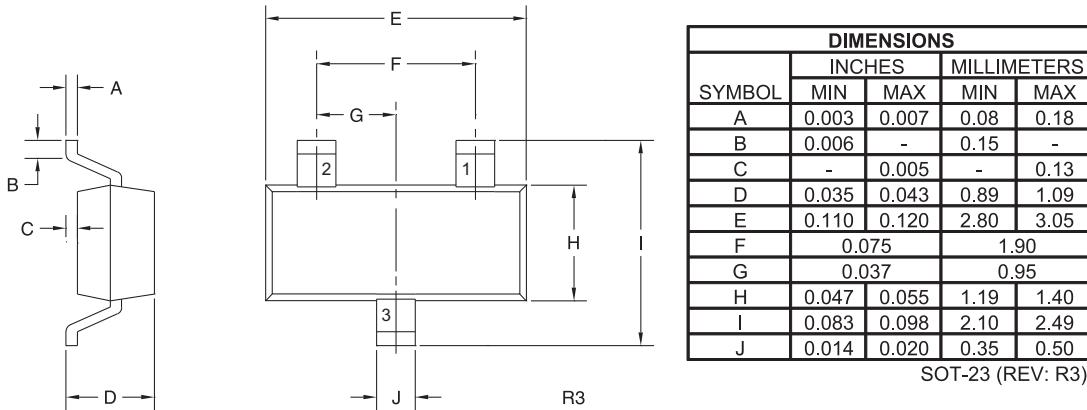
◆◆ Additional Enhanced specification.

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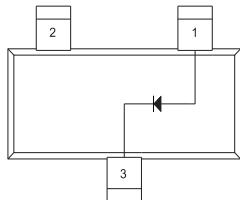
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SOT-23 CASE - MECHANICAL OUTLINE



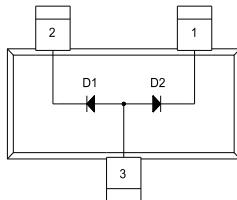
PIN CONFIGURATIONS



CMPSH-3E

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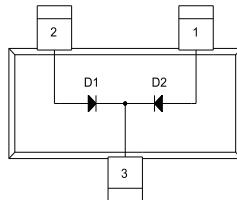
- 1) Anode
- 2) No Connection
- 3) Cathode



CMPSH-3AE

LEAD CODE:

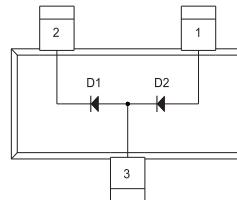
- 1) Cathode D2
- 2) Cathode D1
- 3) Anode D1, D2



CMPSH-3CE

LEAD CODE:

- 1) Anode D2
- 2) Anode D1
- 3) Cathode D1, D2



CMPSH-3SE

LEAD CODE:

- 1) Anode D2
- 2) Cathode D1
- 3) Anode D1, Cathode D2

MARKING CODE: D95E

MARKING CODE: DB1E

MARKING CODE: DB2E

MARKING CODE: DA5E

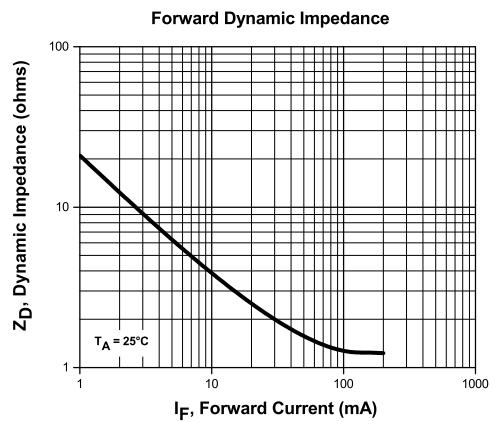
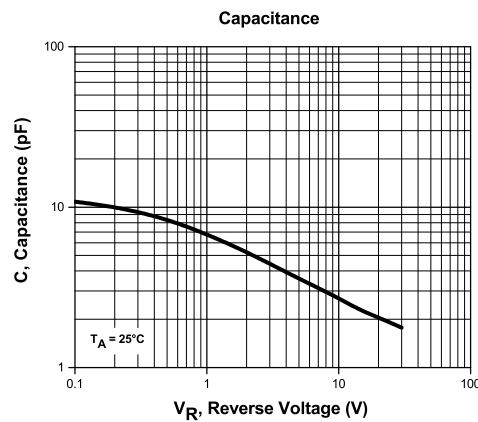
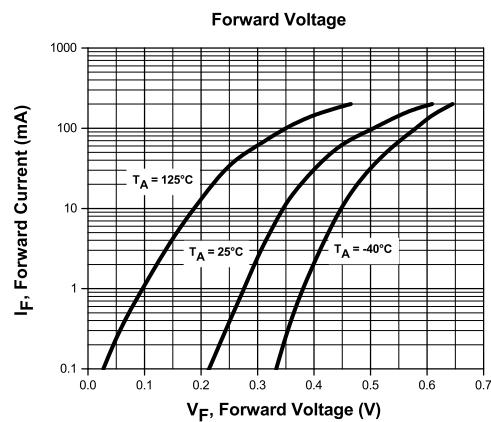
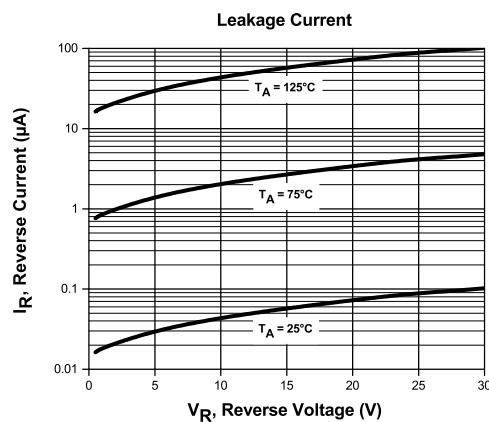
R4 (16-February 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



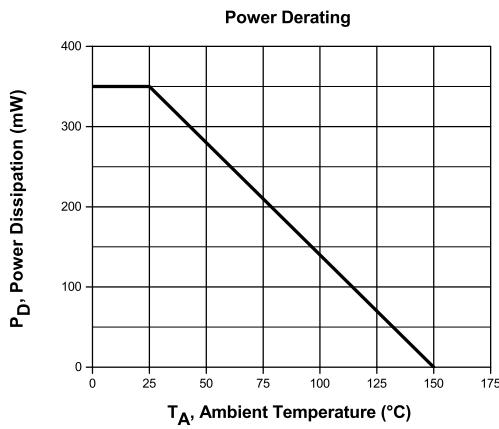
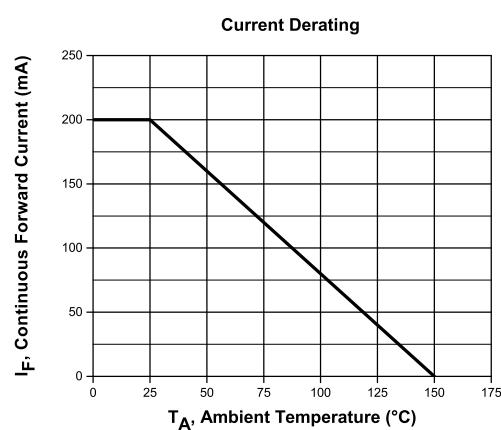
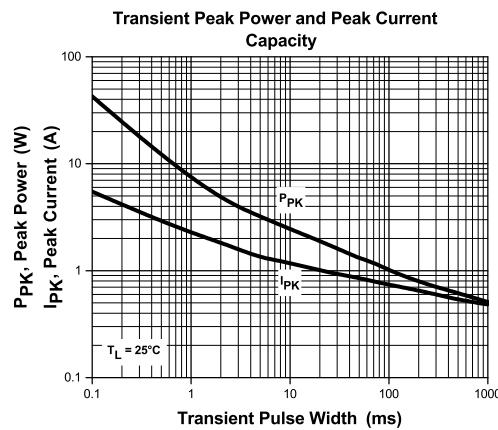
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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