

CMPH-3E
CMPH-3AE
CMPH-3CE
CMPH-3SE

**ENHANCED SPECIFICATION
SURFACE MOUNT SILICON
SCHOTTKY DIODES**



SOT-23 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPH-3E series devices are enhanced versions of the CMPH-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

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

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

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

- ♦ **Peak Repetitive Reverse Voltage**
- ♦ **Continuous Forward Current**
- Peak Repetitive Forward Voltage
- Forward Surge Current, $t_p=10\text{ms}$
- Power Dissipation
- Operating and Storage Junction Temperature
- Thermal Resistance

| SYMBOL | | UNITS |
|----------------|-------------|--------------------|
| V_{RRM} | 40 | V |
| I_F | 200 | mA |
| I_{FRM} | 350 | mA |
| I_{FSM} | 750 | mA |
| P_D | 350 | mW |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| 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 | $I_R=100\mu\text{A}$ | 40 | 50 | | V |
| V_F | $I_F=2.0\text{mA}$ | | 0.29 | 0.33 | V |
| ♦ V_F | $I_F=15\text{mA}$ | | 0.37 | 0.42 | V |
| ♦ V_F | $I_F=100\text{mA}$ | | 0.51 | 0.80 | V |
| ♦♦ V_F | $I_F=200\text{mA}$ | | 0.65 | 1.0 | V |
| C_J | $V_R=1.0\text{V}, f=1.0\text{MHz}$ | | 7.0 | | pF |
| t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | | 5.0 | ns |

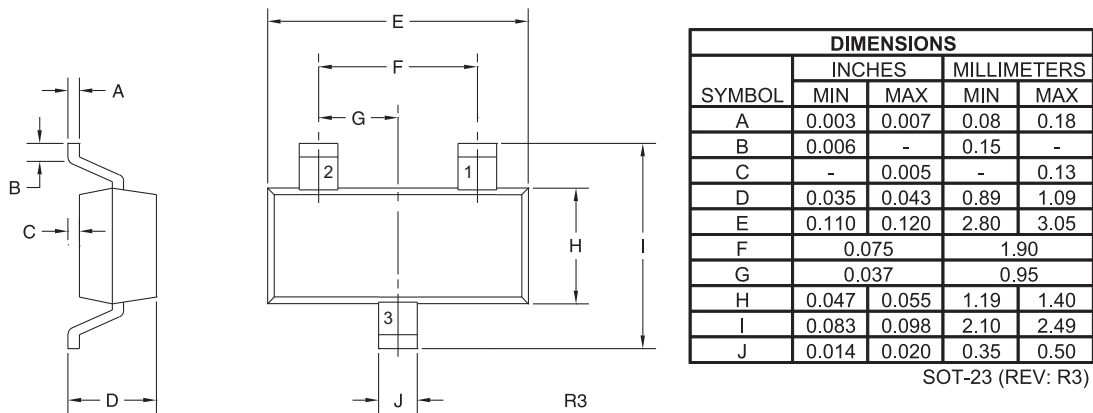
- ♦ Enhanced specification.
- ♦♦ Additional Enhanced specification.

CMP SH-3E
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CMP SH-3SE

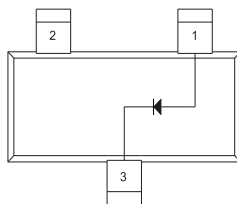
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SOT-23 CASE - MECHANICAL OUTLINE



PIN CONFIGURATIONS

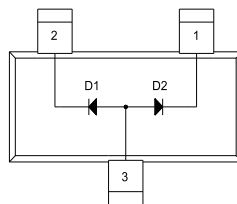


CMPSH-3E

LEAD CODE:

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

MARKING CODE: D95E

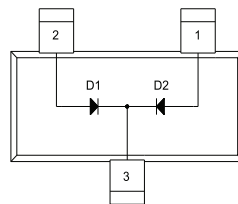


CMPSH-3AE

LEAD CODE:

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

MARKING CODE: DB1E

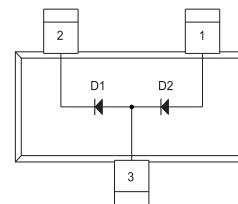


CMPSH-3CE

LEAD CODE:

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

MARKING CODE: DB2E



CMPSH-3SE

LEAD CODE:

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

MARKING CODE: DA5E

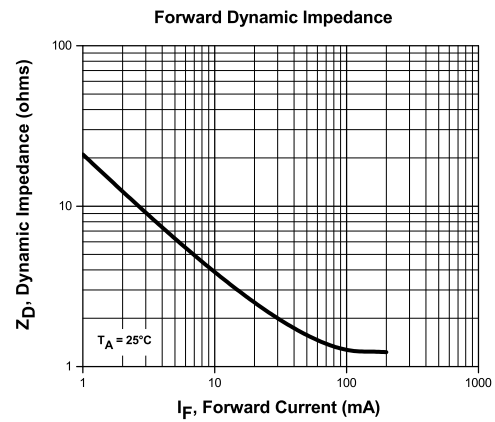
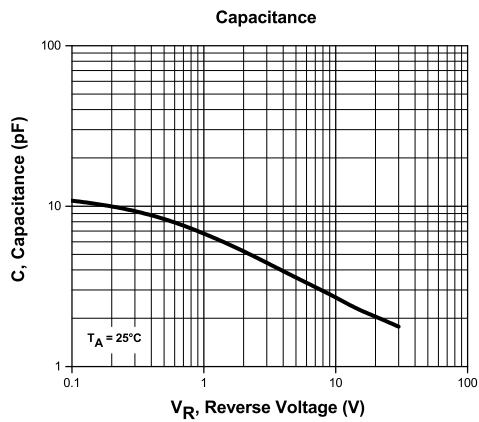
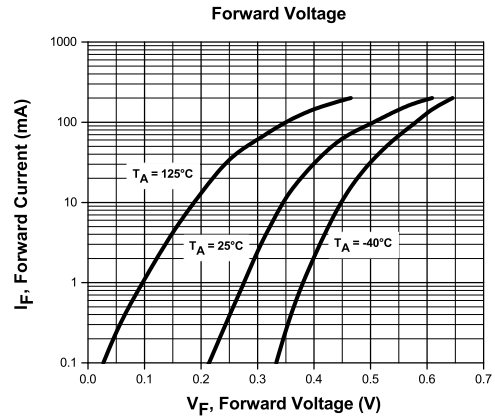
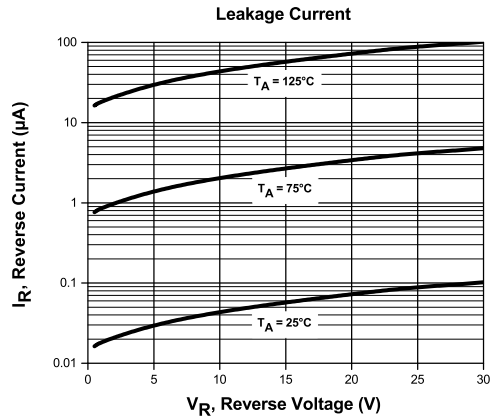
R4 (16-February 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



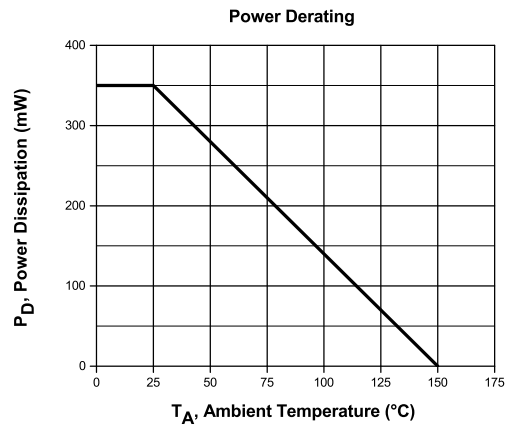
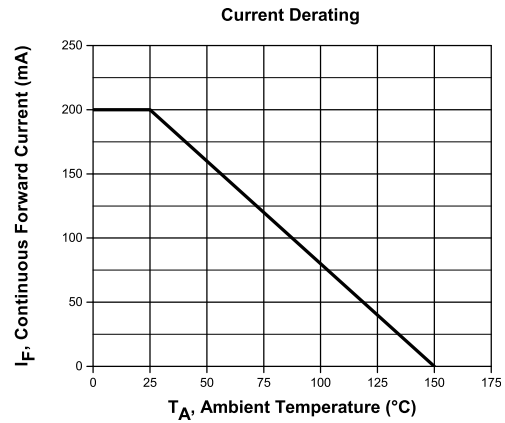
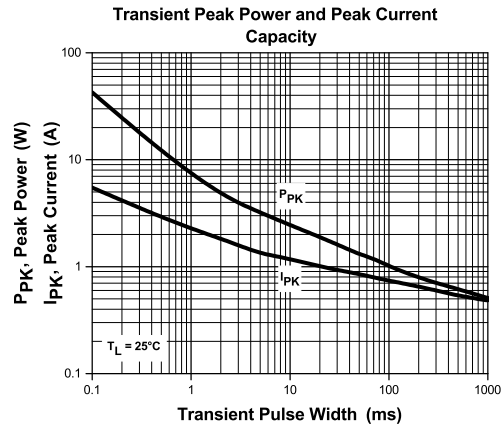
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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