

CMSSH-3E CMSSH-3CE
 CMSSH-3AE CMSSH-3SE

**ENHANCED SPECIFICATION
 SURFACE MOUNT SILICON
 SCHOTTKY DIODES**



SOT-323 CASE

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



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSSH-3E series devices are enhanced versions of the CMSSH-3 series of silicon Schottky diodes in an SOT-323 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

MARKING CODE: 31E
MARKING CODE: 3AE
MARKING CODE: 3CE
MARKING CODE: 3SE

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

- ◆ **Peak Repetitive Reverse Voltage**
- ◆ **Continuous Forward Current**
 Peak Repetitive Forward Current
 Peak 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 | 250 | mW |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Θ_{JA} | 500 | $^\circ\text{C/W}$ |

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 |

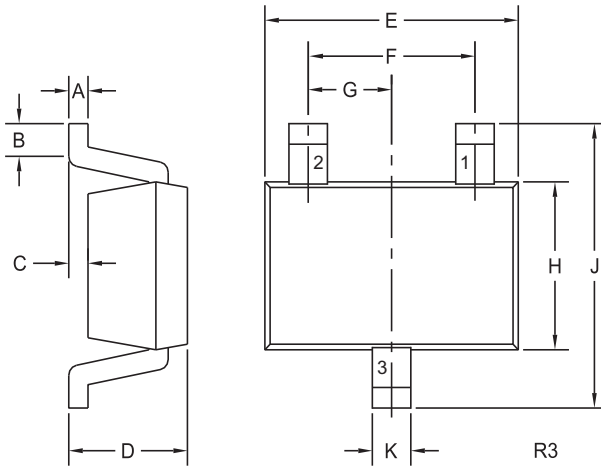
- ◆ Enhanced specification.
- ◆◆ Additional Enhanced specification.

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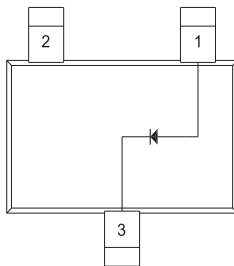
SOT-323 CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.002 | 0.008 | 0.05 | 0.20 |
| B | 0.004 | - | 0.10 | - |
| C | - | 0.004 | - | 0.10 |
| D | 0.031 | 0.043 | 0.80 | 1.10 |
| E | 0.071 | 0.087 | 1.80 | 2.20 |
| F | 0.051 | | 1.30 | |
| G | 0.026 | | 0.65 | |
| H | 0.045 | 0.053 | 1.15 | 1.35 |
| J | 0.079 | 0.087 | 2.00 | 2.20 |
| K | 0.008 | 0.016 | 0.20 | 0.40 |

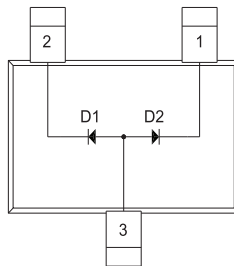
SOT-323 (REV: R3)

PIN CONFIGURATIONS



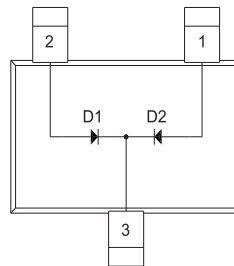
CMSSH-3E
LEAD CODE:
 1) Anode
 2) NC
 3) Cathode

MARKING CODE: 31E



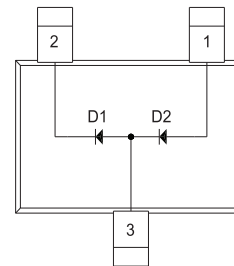
CMSSH-3AE
LEAD CODE:
 1) Cathode D2
 2) Cathode D1
 3) Anode D1, D2

MARKING CODE: 3AE



CMSSH-3CE
LEAD CODE:
 1) Anode D2
 2) Anode D1
 3) Cathode D1, D2

MARKING CODE: 3CE



CMSSH-3SE
LEAD CODE:
 1) Anode D2
 2) Cathode D1
 3) Anode D1, Cathode D2

MARKING CODE: 3SE

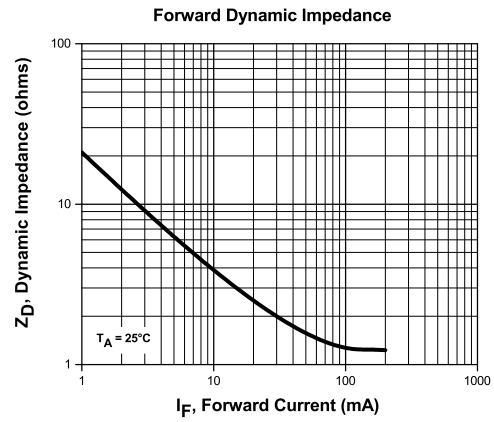
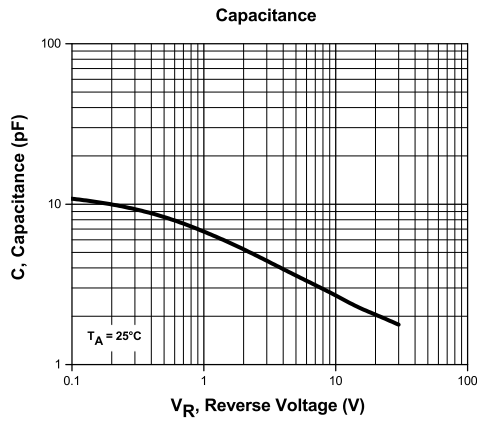
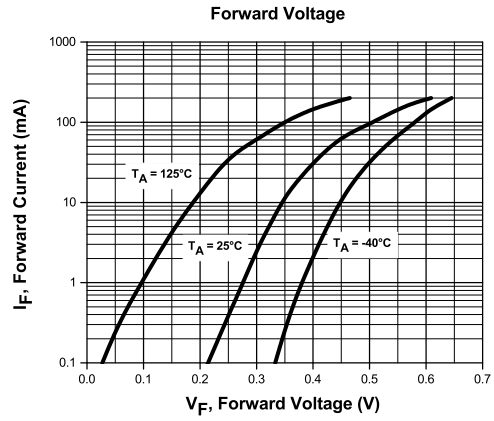
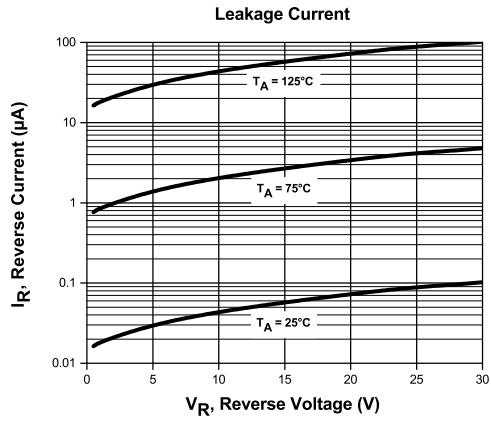
R3 (16-February 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



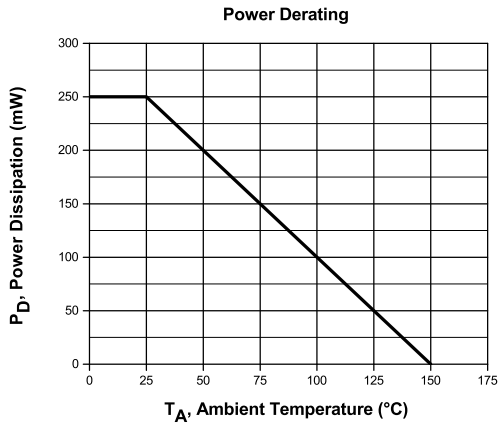
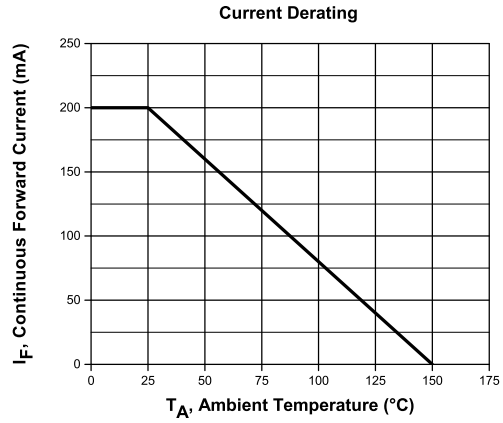
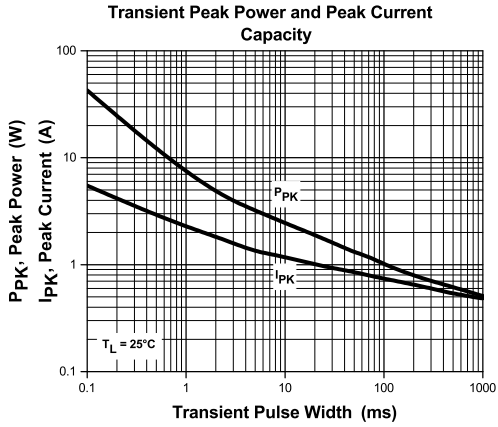
R3 (16-February 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



R3 (16-February 2016)

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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