

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 | $^\circ\text{C/W}$ |

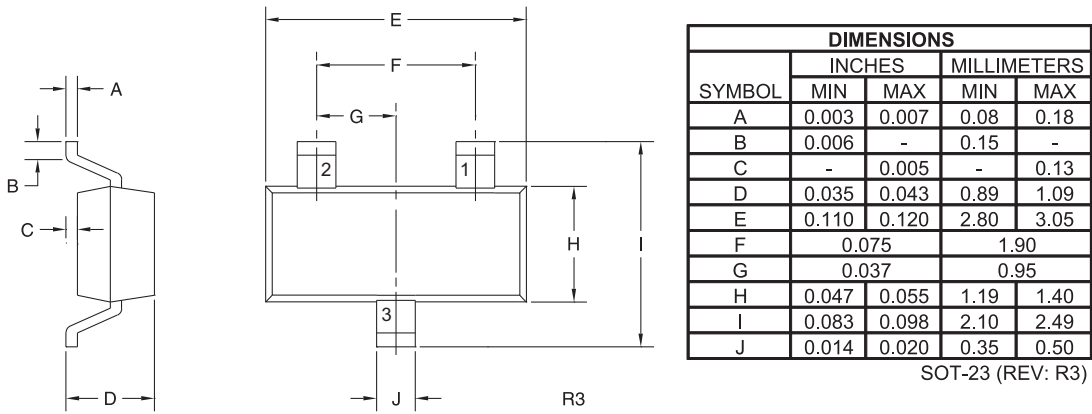
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| 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 |

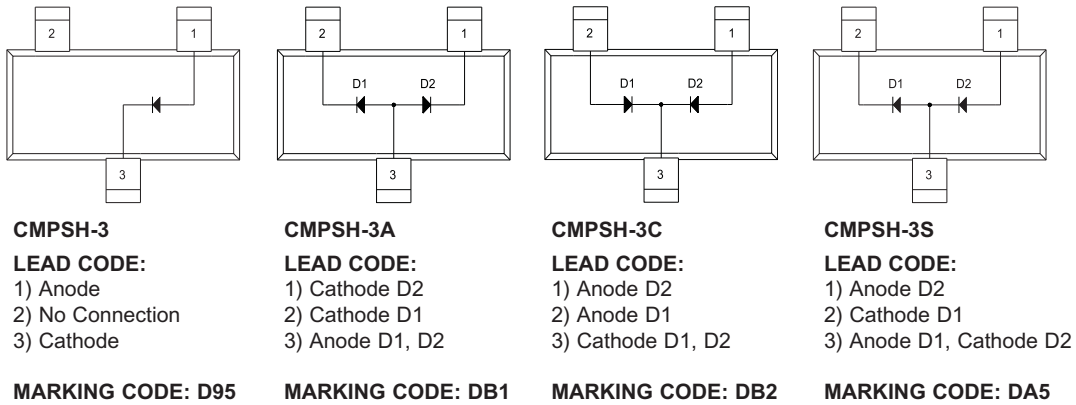
CMP SH-3
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SOT-23 CASE - MECHANICAL OUTLINE



PIN CONFIGURATIONS



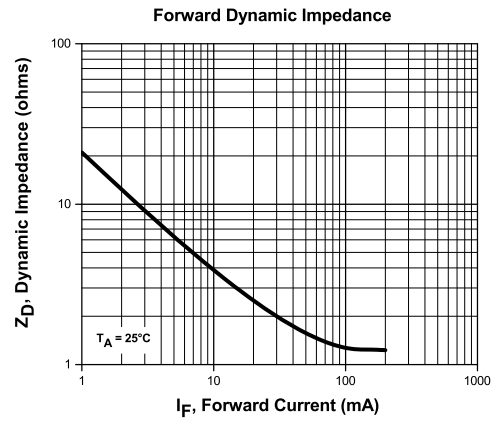
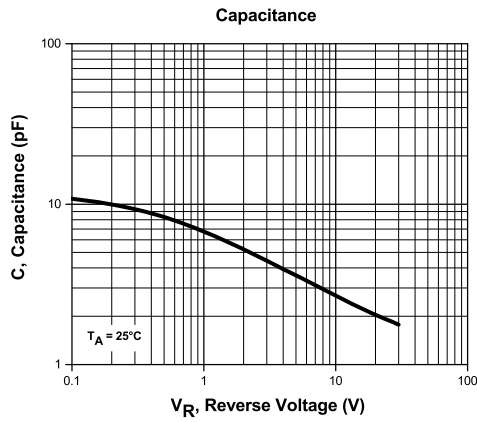
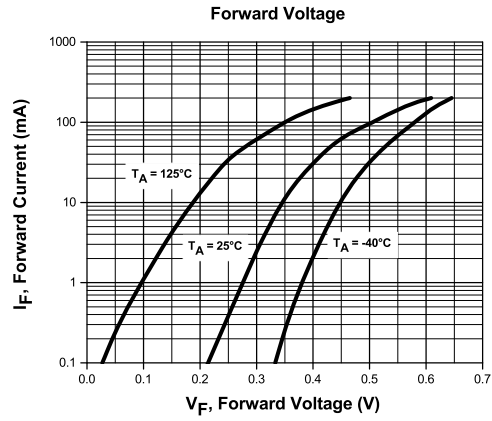
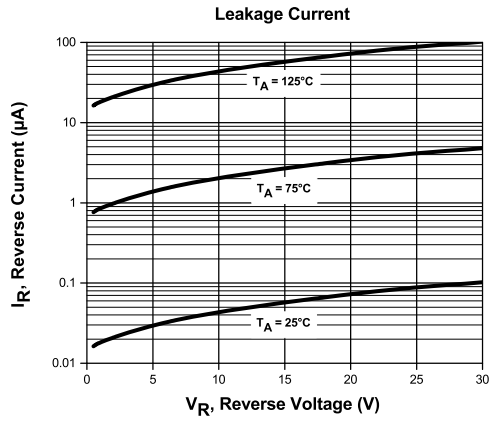
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TYPICAL ELECTRICAL CHARACTERISTICS



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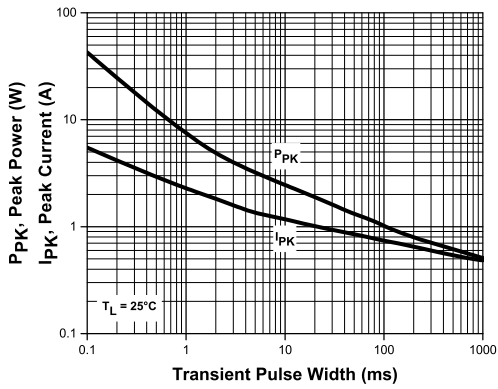
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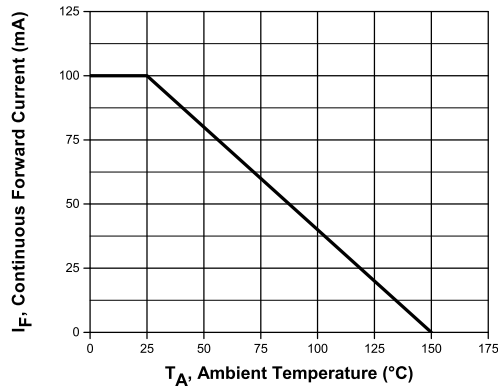


TYPICAL ELECTRICAL CHARACTERISTICS

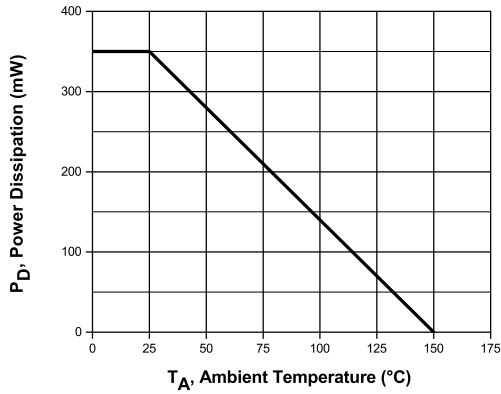
Transient Peak Power and Peak Current Capacity



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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