



**THE DATASHEET OF
CMPSH05-4C TR**



CMPSH05-4C

**SURFACE MOUNT SILICON
DUAL, COMMON CATHODE
HIGH CURRENT, LOW V_F
SCHOTTKY DIODE**

**SOT-23F CASE**www.centrasemi.com**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPSH05-4C is a dual, common cathode high current, low V_F 40 volt Schottky diode pair packaged in a space saving SOT-23F surface mount case. This device has been designed for small signal general purpose applications when small size and operational efficiency are prime requirements.

MARKING CODE: C405**FEATURES:**

- Low $V_F=0.35V$ max @ 100mA
- $V_{RRM}=40V$
- $I_F=500mA$

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

Peak Repetitive Reverse Voltage
 Continuous Forward Current
 Peak Repetitive Forward Current, $t_p \leq 1.0ms$
 Peak Forward Surge Current, $t_p=8.0ms$
 Power Dissipation
 Operating and Storage Junction Temperature
 Thermal Resistance

SYMBOL

| | | |
|----------------|-------------|--|
| V_{RRM} | 40 | |
| I_F | 500 | |
| I_{FRM} | 3.5 | |
| I_{FSM} | 10 | |
| P_D | 350 | |
| T_J, T_{stg} | -65 to +150 | |
| θ_{JA} | 357 | |

UNITS

V
 mA
 A
 A
 mW
 $^\circ C$
 $^\circ C/W$

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

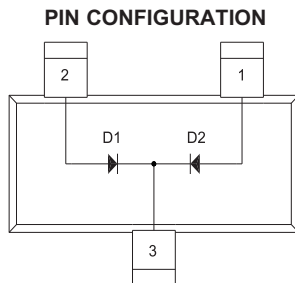
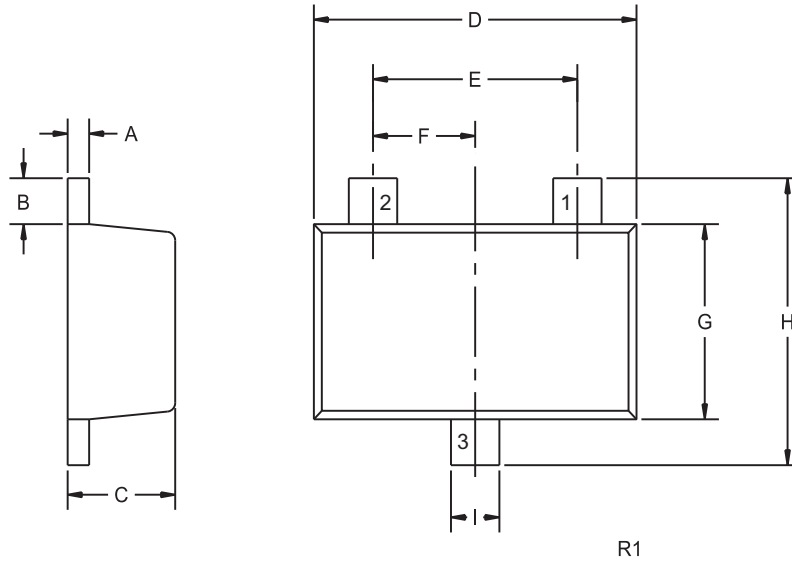
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|--------|----------------------|-----|------|---------|
| I_R | $V_R=10V$ | | 30 | μA |
| I_R | $V_R=30V$ | | 100 | μA |
| BV_R | $I_R=500\mu A$ | 40 | | V |
| V_F | $I_F=100\mu A$ | | 0.13 | V |
| V_F | $I_F=1.0mA$ | | 0.21 | V |
| V_F | $I_F=10mA$ | | 0.27 | V |
| V_F | $I_F=100mA$ | | 0.35 | V |
| V_F | $I_F=500mA$ | | 0.47 | V |
| C_J | $V_R=1.0V, f=1.0MHz$ | | 50 | pF |

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SOT-23F CASE - MECHANICAL OUTLINE



LEAD CODE:

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

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| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------------|------|------|
| | INCHES | MILLIMETERS | | |
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.008 | 0.10 | 0.20 |
| B | 0.012 | 0.020 | 0.30 | 0.50 |
| C | 0.031 | 0.039 | 0.80 | 1.00 |
| D | 0.110 | 0.118 | 2.80 | 3.00 |
| E | 0.075 | | 1.90 | |
| F | 0.037 | | 0.95 | |
| G | 0.059 | 0.067 | 1.50 | 1.70 |
| H | 0.091 | 0.098 | 2.30 | 2.50 |
| I | 0.014 | 0.018 | 0.35 | 0.45 |

SOT-23F (REV: R1)

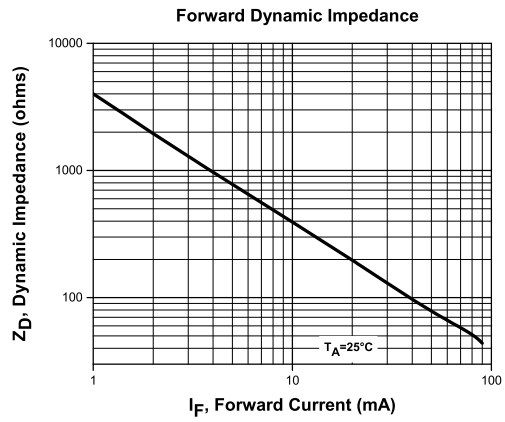
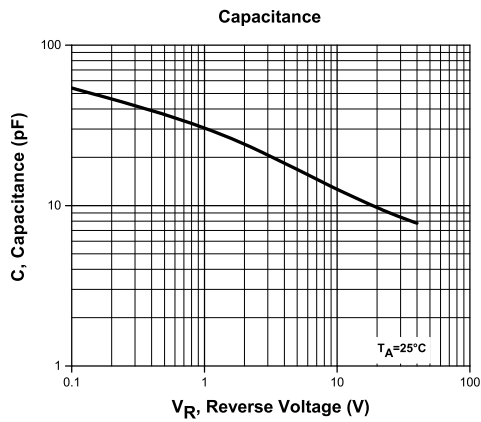
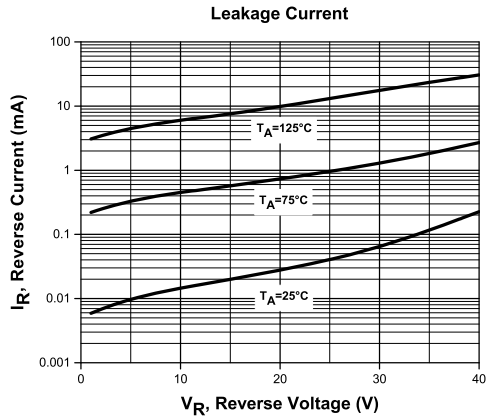
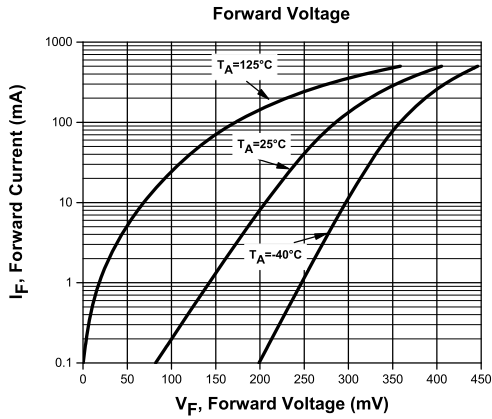
R3 (8-January 2018)

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TYPICAL ELECTRICAL CHARACTERISTICS



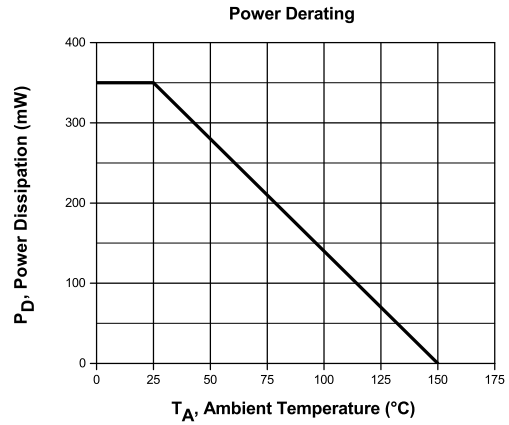
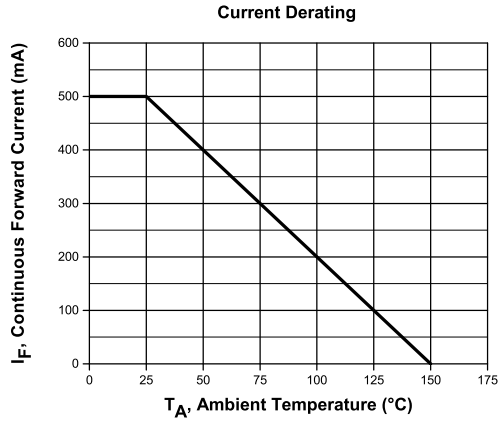
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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