

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)

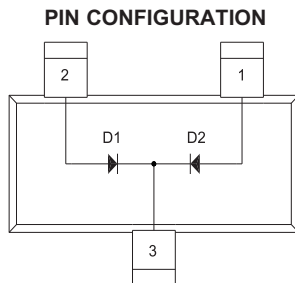
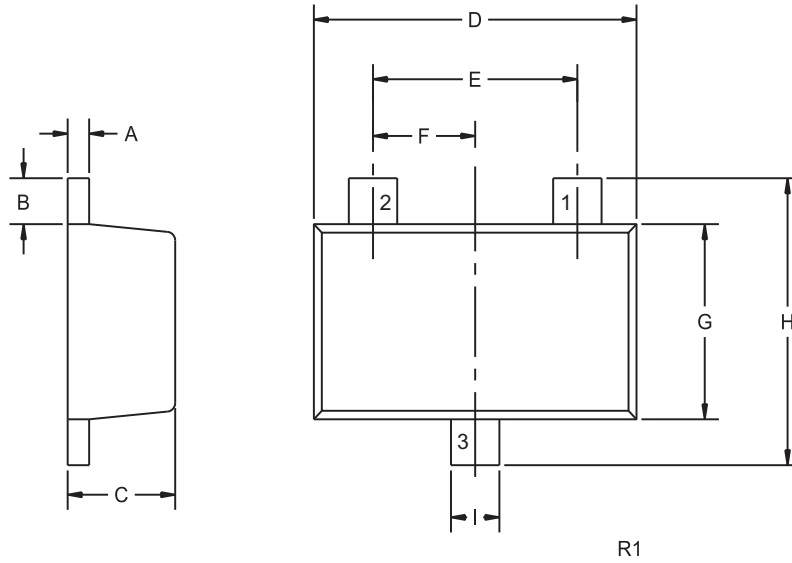
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|--------|----------------------|-----|------|---------|
| I_R | $V_R=10V$ | | 30 | μA |
| I_R | $V_R=30V$ | | 100 | μA |
| BV_R | $I_R=500\mu A$ | 40 | | V |
| V_F | $I_F=100\mu A$ | | 0.13 | V |
| V_F | $I_F=1.0mA$ | | 0.21 | V |
| V_F | $I_F=10mA$ | | 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 |

CMP5H05-4C

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



SOT-23F CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE: C405

| SYMBOL | DIMENSIONS | | 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)

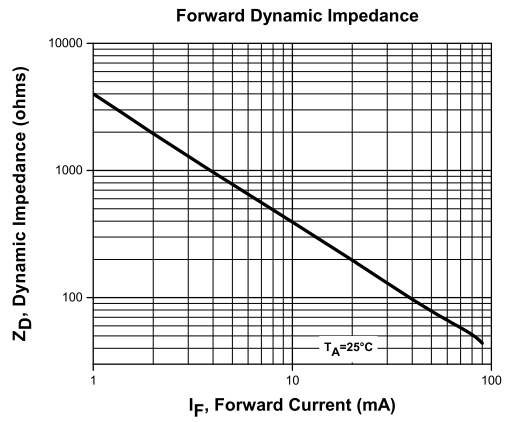
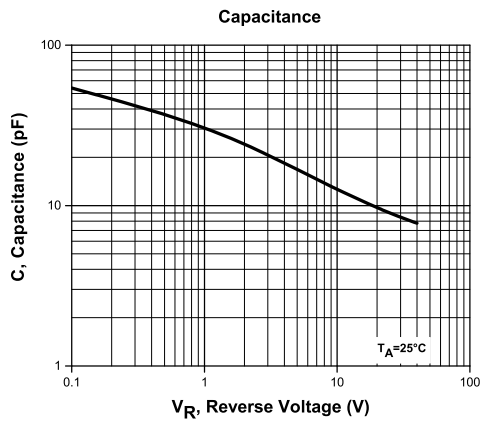
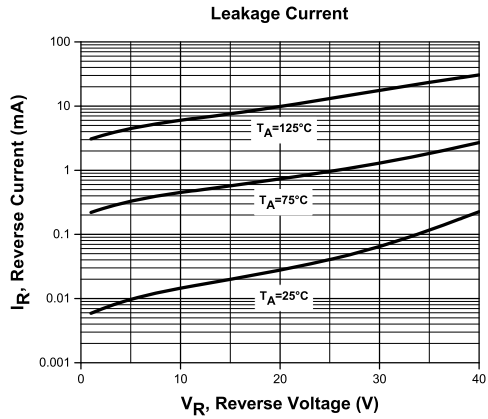
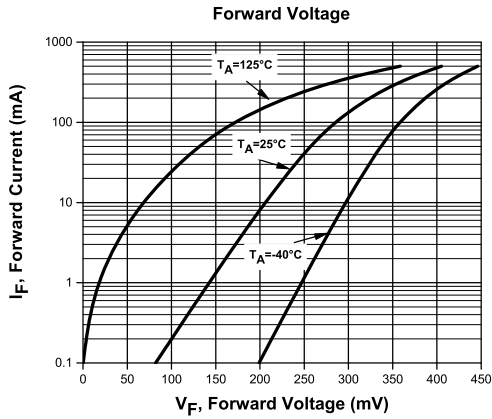
R3 (8-January 2018)

CMP5H05-4C

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



TYPICAL ELECTRICAL CHARACTERISTICS



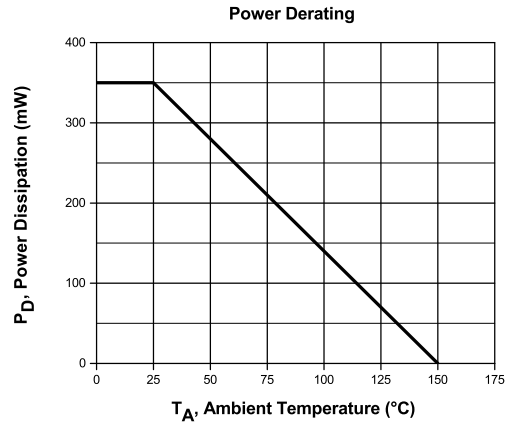
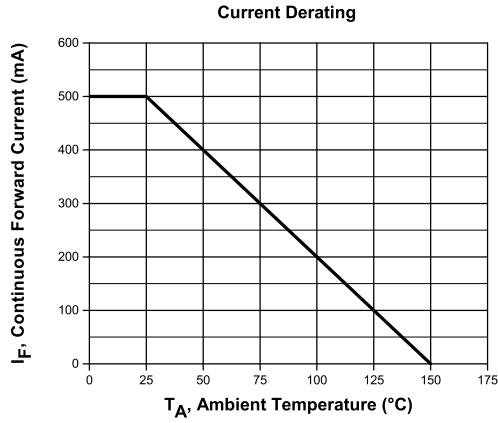
R3 (8-January 2018)

CMP SH05-4C

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



TYPICAL ELECTRICAL CHARACTERISTICS



R3 (8-January 2018)

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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms

Product End of Life Notification

| | |
|---------------------------|----------|
| PDN ID: | PDN01160 |
| Notification Date: | 8/11/20 |
| Last Buy Date: | 2/11/21 |
| Last Shipment Date | 8/11/21 |

Summary: All devices manufactured in the SOT-23F package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE, TIN/LEAD) for each item listed is included in this notice.**

| <u>Central Part Number</u> | <u>Replacement</u> |
|----------------------------|--------------------|
| CEN1232 BK | N/A, Stock Only |
| CEN1232 TR | N/A, Stock Only |
| CEN1233 BK | N/A, Stock Only |
| CEN1233 TR | N/A, Stock Only |
| CMPSH05-4C BK | N/A, Stock Only |
| CMPSH05-4C TR | N/A, Stock Only |
| CMPSH1-4 BK | N/A, Stock Only |
| CMPSH1-4 TR | N/A, Stock Only |
| CMPSH1-4L BK | N/A, Stock Only |
| CMPSH1-4L TR | N/A, Stock Only |
| CMPSH1-4LE BK | N/A, Stock Only |
| CMPSH1-4LE TR | N/A, Stock Only |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.