SURFACE MOUNT SILICON HIGH SPEED SWITCHING DIODE



www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPD914 is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package, designed for high speed switching applications.

MARKING CODE: C5D



SOT-23 CASE

| MAXIMUM RATINGS: (T _A =25°C) | SYMBOL | | UNITS |
|--|-----------------------------------|-------------|-------|
| Continuous Reverse Voltage | v_R | 75 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | 100 | V |
| Continuous Forward Current | Ι _Ε | 250 | mA |
| Peak Repetitive Forward Current | I _{FRM} | 250 | mA |
| Peak Forward Surge Current, tp=1.0µs | I _{FSM} | 4.0 | Α |
| Peak Forward Surge Current, tp=1.0ms | I _{FSM} | 2.0 | Α |
| Peak Forward Surge Current, tp=1.0s | I _{FSM} | 1.0 | Α |
| Power Dissipation | P_{D} | 350 | mW |
| Operating and Storage Junction Temperature | T _J , T _{stg} | -65 to +150 | °C |
| Thermal Resistance | Θ_{JA} | 357 | °C/W |

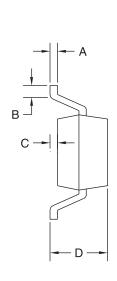
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

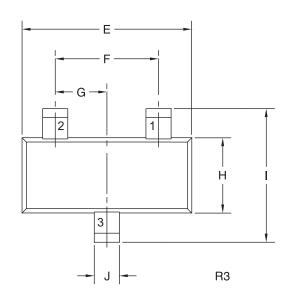
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|-----------------|--|-----|-----|-------|
| I_{R} | V _R =20V | | 25 | nA |
| I_{R} | V _R =75V | | 5.0 | μΑ |
| BV_R | I _R =100μA | 100 | | V |
| V_{F} | I _E =10mA | | 1.0 | V |
| CJ | V _R =0, f=1.0MHz | | 4.0 | pF |
| t _{rr} | $I_R = I_F = 10 \text{mA}, I_{rr} = 1.0 \text{mA}, R_I = 100 \Omega$ | | 4.0 | ns |

SURFACE MOUNT SILICON HIGH SPEED SWITCHING DIODE

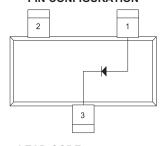


SOT-23 CASE - MECHANICAL OUTLINE





PIN CONFIGURATION



LEAD CODE:

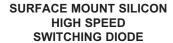
- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: C5D

| DIMENSIONS | | | | | | | |
|------------|--------|-------|-------------|------|--|--|--|
| | INCHES | | MILLIMETERS | | | | |
| SYMBOL | MIN | MAX | MIN | MAX | | | |
| Α | 0.003 | 0.007 | 0.08 | 0.18 | | | |
| В | 0.006 | - | 0.15 | - | | | |
| С | - | 0.005 | - | 0.13 | | | |
| D | 0.035 | 0.043 | 0.89 | 1.09 | | | |
| E | 0.110 | 0.120 | 2.80 | 3.05 | | | |
| F | 0.075 | | 1.90 | | | | |
| G | 0.037 | | 0.95 | | | | |
| Н | 0.047 | 0.055 | 1.19 | 1.40 | | | |
| | 0.083 | 0.098 | 2.10 | 2.49 | | | |
| J | 0.014 | 0.020 | 0.35 | 0.50 | | | |

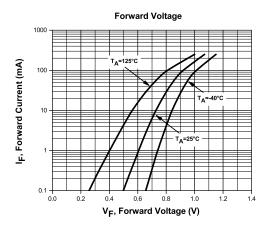
SOT-23 (REV: R3)

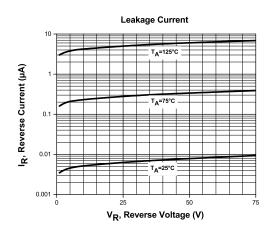
R7 (12-January 2016)

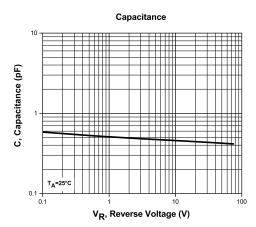


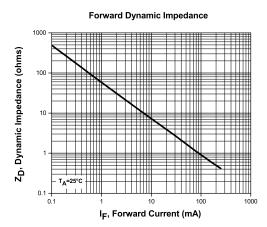


TYPICAL ELECTRICAL CHARACTERISTICS





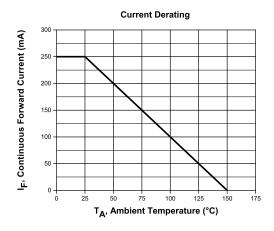


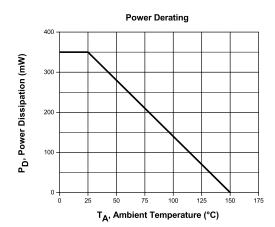






TYPICAL ELECTRICAL CHARACTERISTICS





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 guick 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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