

CSHD6-40C

**SURFACE MOUNT SILICON
DUAL, COMMON CATHODE
SCHOTTKY RECTIFIER
6.0 AMP, 40 VOLT**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSHD6-40C is a highly reliable silicon Schottky rectifier designed for use in all types of commercial, industrial, entertainment and automotive applications.



DPAK CASE

MARKING: FULL PART NUMBER**MAXIMUM RATINGS:** ($T_C=25^\circ\text{C}$ unless otherwise noted)

| | SYMBOL | | UNITS |
|---|----------------|-------------|---------------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 40 | V |
| Average Rectified Forward Current ($T_C=120^\circ\text{C}$) | I_O | 6.0 | A |
| Peak Forward Surge Current, $t_p=10\text{ms}$ | I_{FSM} | 75 | A |
| Peak Repetitive Reverse Surge Current, $t_p=2.0\mu\text{s}$ | I_{RRM} | 1.0 | A |
| Critical Rate of Rise of Reverse Voltage | dv/dt | 10,000 | V/ μs |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JC} | 5.5 | $^\circ\text{C}/\text{W}$ |

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

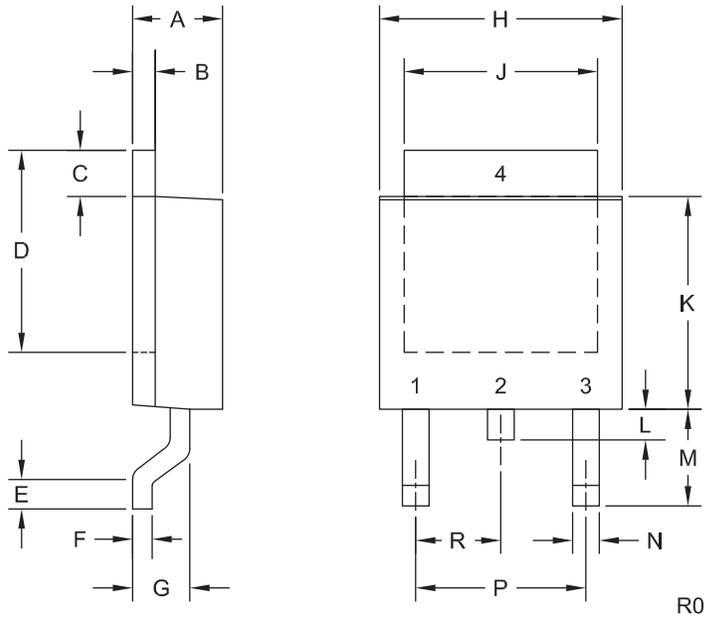
| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|---------------|--|------------|------------|---------------|
| I_R | $V_R=40\text{V}$ | 32 | 100 | μA |
| I_R | $V_R=40\text{V}, T_C=125^\circ\text{C}$ | 17.3 | 30 | mA |
| V_F | $I_F=3.0\text{A}$ | 0.50 | 0.65 | V |
| V_F | $I_F=3.0\text{A}, T_C=125^\circ\text{C}$ | 0.36 | 0.60 | V |
| V_F | $I_F=6.0\text{A}$ | 0.51 | 0.85 | V |
| V_F | $I_F=6.0\text{A}, T_C=125^\circ\text{C}$ | 0.48 | 0.80 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | 564 | | pF |

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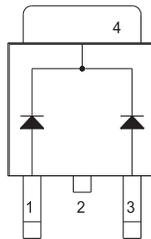
DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Anode 1
 - 2) Cathode
 - 3) Anode 2
 - 4) Cathode
- Pin 2 is common to the tab (4)

MARKING: FULL PART NUMBER



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.083 | 0.108 | 2.10 | 2.75 |
| B | 0.016 | 0.032 | 0.40 | 0.81 |
| C | 0.035 | 0.063 | 0.89 | 1.60 |
| D | 0.203 | 0.228 | 5.15 | 5.79 |
| E | 0.020 | - | 0.51 | - |
| F | 0.018 | 0.024 | 0.45 | 0.60 |
| G | 0.051 | 0.071 | 1.30 | 1.80 |
| H | 0.248 | 0.268 | 6.30 | 6.81 |
| J | 0.197 | 0.217 | 5.00 | 5.50 |
| K | 0.209 | 0.245 | 5.30 | 6.22 |
| L | 0.025 | 0.040 | 0.64 | 1.02 |
| M | 0.090 | 0.115 | 2.30 | 2.91 |
| N | 0.012 | 0.045 | 0.30 | 1.14 |
| P | 0.180 | | 4.60 | |
| R | 0.090 | | 2.30 | |

DPAK (REV: R0)

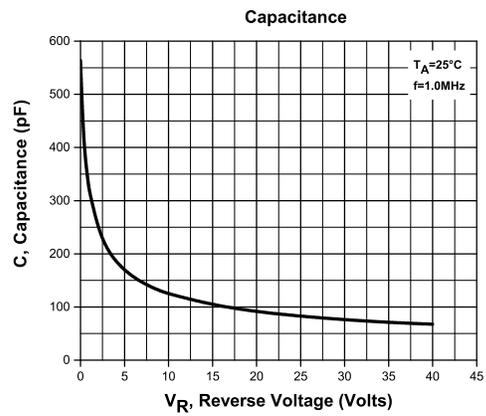
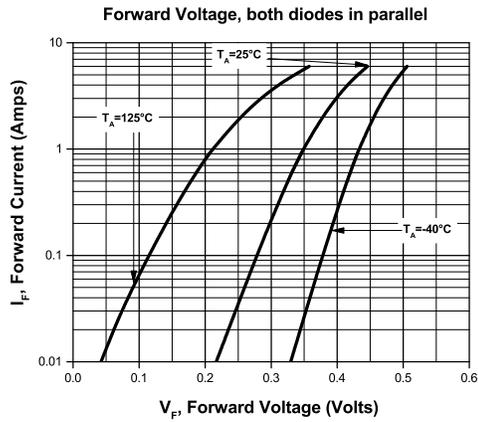
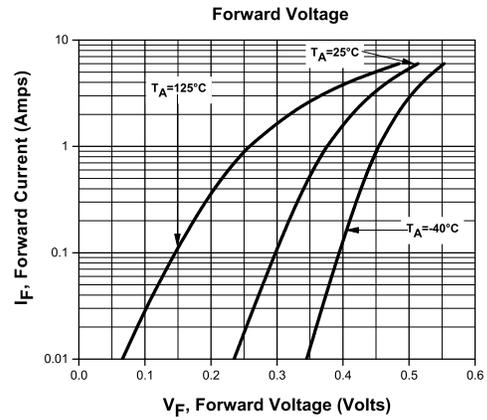
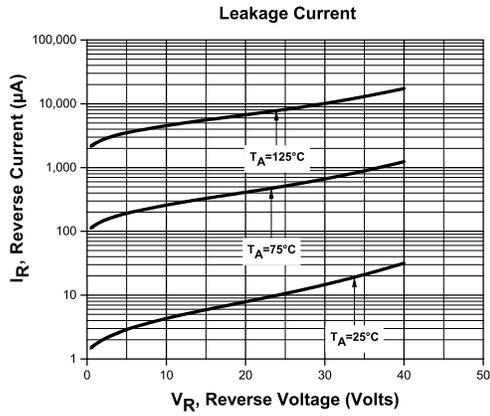
R11 (1-March 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



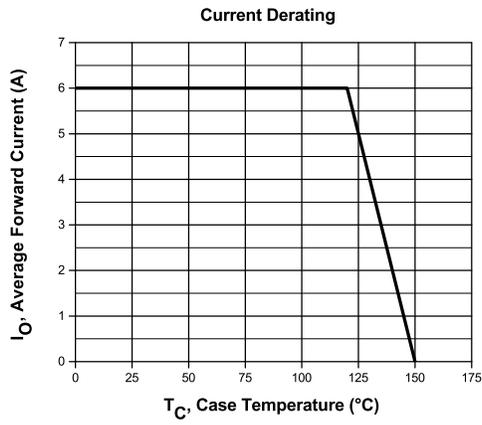
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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