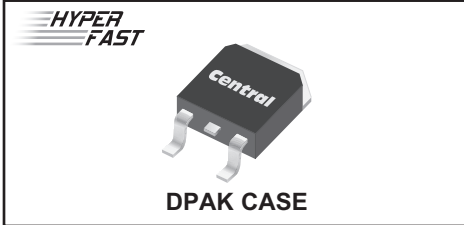


CHD8-06

**SURFACE MOUNT SILICON  
HYPERFAST  
POWER RECTIFIER  
8.0 AMP, 600 VOLT**



**APPLICATIONS:**

- Power factor correction
- Motor control

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

|   | <b>SYMBOL</b>  |             | <b>UNITS</b>         |
|---|----------------|-------------|----------------------|
| Peak Repetitive Reverse Voltage                       | $V_{RRM}$      | 600         | V                    |
| DC Blocking Voltage                                   | $V_R$          | 600         | V                    |
| RMS Reverse Voltage                                   | $V_{R(RMS)}$   | 420         | V                    |
| Average Forward Current ( $T_L=100^{\circ}\text{C}$ ) | $I_O$          | 8.0         | A                    |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$        | $I_{FSM}$      | 70          | A                    |
| Operating and Storage Junction Temperature            | $T_J, T_{stg}$ | -65 to +175 | $^{\circ}\text{C}$   |
| Thermal Resistance                                    | $\theta_{JL}$  | 5.0         | $^{\circ}\text{C/W}$ |

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

| <b>SYMBOL</b> | <b>TEST CONDITIONS</b>  | <b>TYP</b> | <b>MAX</b> | <b>UNITS</b>  |
|---------------|---|------------|------------|---------------|
| $I_R$         | $V_R=600\text{V}$   |            | 10         | $\mu\text{A}$ |
| $I_R$         | $V_R=600\text{V}, T_A=150^{\circ}\text{C}$                        |            | 500        | $\mu\text{A}$ |
| $V_F$         | $I_F=8.0\text{A}$   | 1.9        | 2.2        | V             |
| $C_J$         | $V_R=4.0\text{V}, f=1.0\text{MHz}$                                | 26         |            | pF            |
| $t_{rr}$      | $I_F=8.0\text{A}, V_R=400\text{V}, di/dt=200\text{A}/\mu\text{s}$ | 22         | 25         | ns            |



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CHD8-06 is a high voltage silicon HyperFast power rectifier designed for extremely fast switching applications.

**MARKING: FULL PART NUMBER**

**FEATURES:**

- High current capability
- High surge capacity
- HyperFast recovery time (22ns TYP)
- High voltage

CHD8-06

**SURFACE MOUNT SILICON  
HYPERFAST  
POWER RECTIFIER  
8.0 AMP, 600 VOLT**



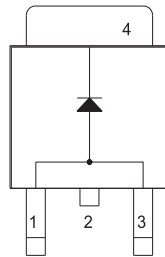
**DPAK CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Anode
  - 2) Cathode
  - 3) Anode
  - 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)

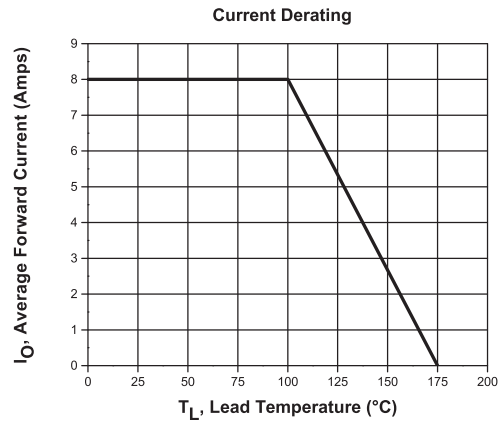
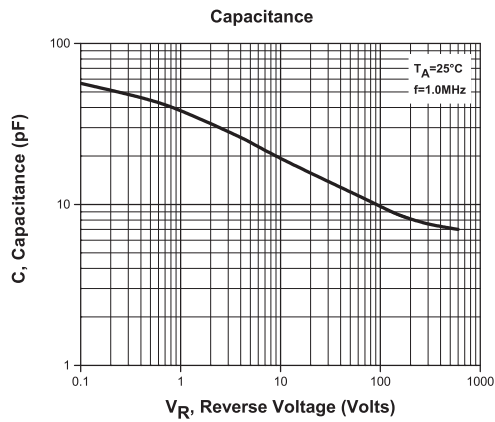
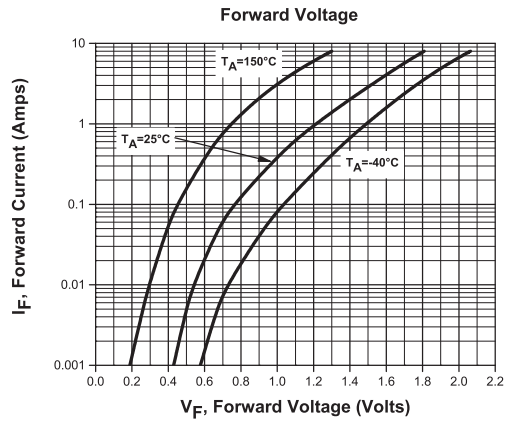
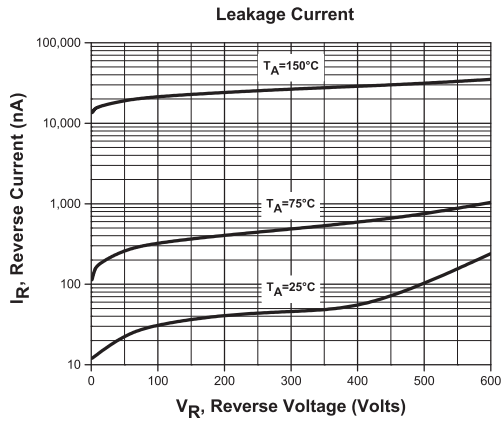
R2 (6-March 2014)

CHD8-06

SURFACE MOUNT SILICON  
HYPERFAST  
POWER RECTIFIER  
8.0 AMP, 600 VOLT



TYPICAL ELECTRICAL CHARACTERISTICS



R2 (6-March 2014)