

CHD8-06

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

**HYPER  
FAST**



**DPAK CASE**

**APPLICATIONS:**

- Power factor correction
- Motor control



[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

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

	SYMBOL		UNITS
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)

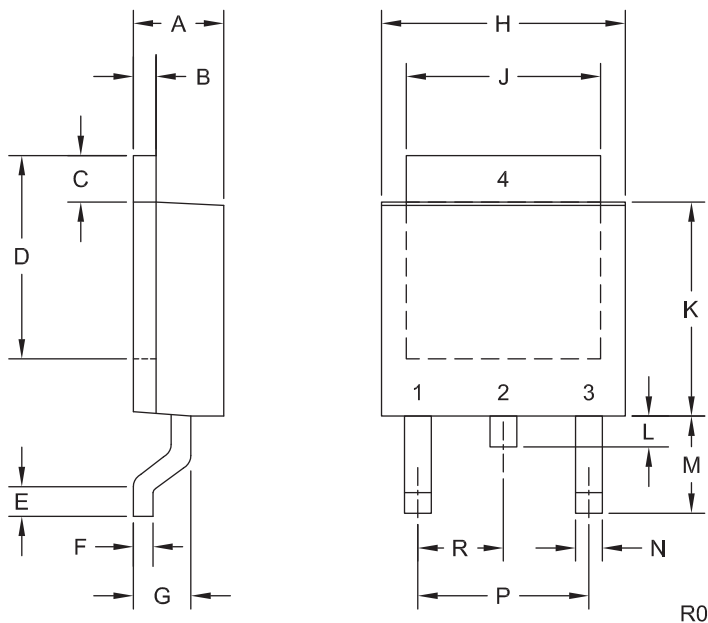
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_R$	$V_R=600\text{V}$		10	$\mu\text{A}$
$I_R$	$V_R=600\text{V}, T_A=150^{\circ}\text{C}$		500	$\mu\text{A}$
$V_F$	$I_F=8.0\text{A}$	1.9	2.2	V
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$	26	35	pF
$t_{rr}$	$I_F=8.0\text{A}, V_R=400\text{V}, di/dt=200\text{A}/\mu\text{s}$	22	25	ns

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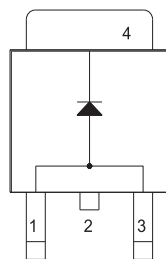
**DPAK CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING: FULL PART NUMBER**



DIMENSIONS				
SYMBOL	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)

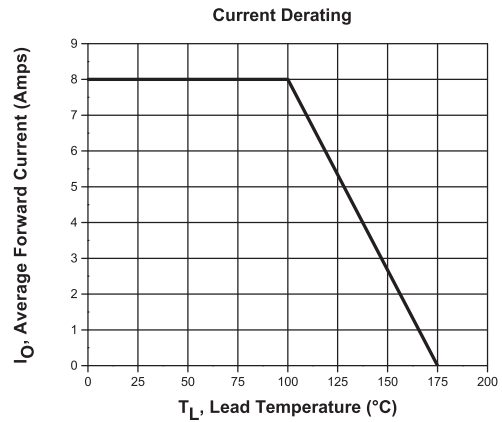
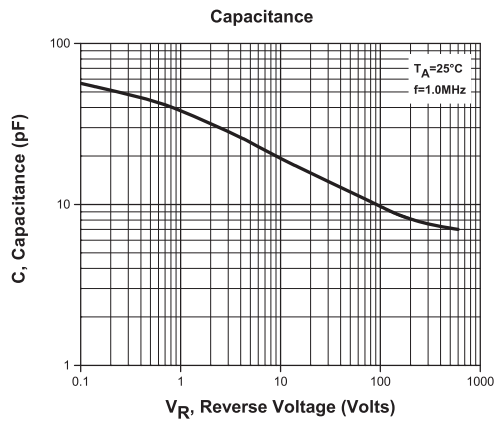
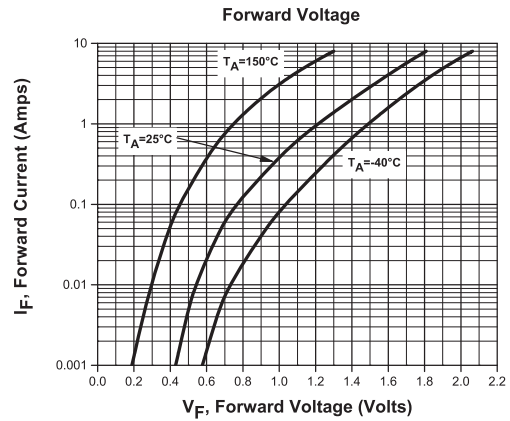
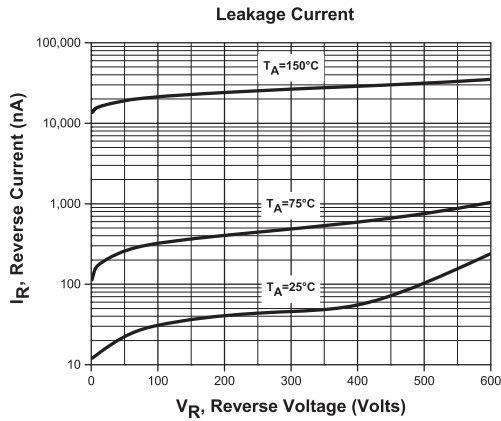
R3 (31-August 2016)

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**TYPICAL ELECTRICAL CHARACTERISTICS**



R3 (31-August 2016)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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

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### 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).

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### CONTACT US

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# Mouser Electronics

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