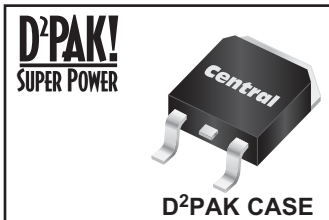
CUDD8-02
CUDD8-04
CUDD8-08

SURFACE MOUNT SILICON ULTRA FAST RECOVERY RECTIFIERS 8.0 AMP, 200 THRU 800 VOLT



D²PAK CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CUDD8-02, CUDD8-04, and CUDD8-06 are silicon Ultra-Fast Recovery Rectifiers designed for surface mount ultra fast switching applications requiring a low forward voltage drop.

MARKING CODE: FULL PART NUMBER

FEATURES:

- High Reliability
- Low Forward Voltage
- High Current Capability
- High Surge Capacity
- UL Flammability Classification 94V-O
- Superior Lot To Lot Consistency
- Ultra Fast Recovery Time
- High Voltage

MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)

	SYMBOL	CUDD8-02	CUDD8-04	CUDD8-08	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	400	800	V
DC Blocking Voltage	V_R	200	400	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	560	V
Average Forward Current (T_C=100°C)	I_O		8.0		A
Peak Forward Surge Current, tp=8.3ms	I_{FSM}		125		A
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		°C
Typical Thermal Resistance	Θ_{JC}		5.0		°C/W
Typical Thermal Resistance	Θ_{JA}		50		°C/W

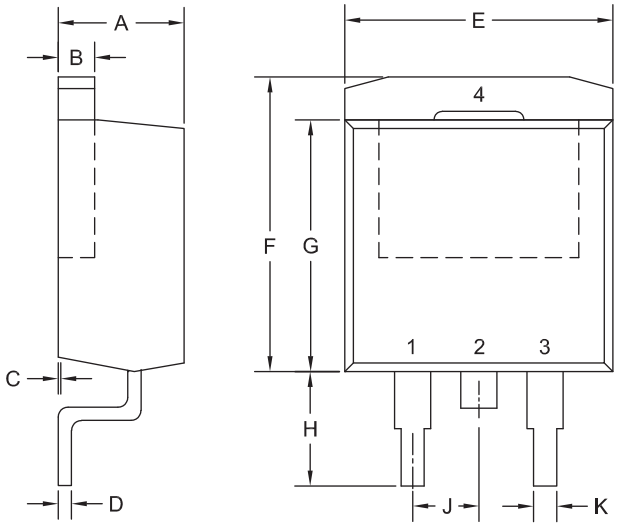
ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

		CUDD8-02		CUDD8-04		CUDD8-08		
SYMBOL	TEST CONDITIONS	TYP	MAX	TYP	MAX	TYP	MAX	UNITS
I_R	V_R=Rated V_{RRM}	-	5.0	-	10	-	10	μA
I_R	V_R=Rated V_{RRM}, T_C= 150°C	-	250	-	500	-	500	μA
V_F	I_F=8.0A	-	0.975	-	1.3	-	1.5	V
V_F	I_F=8.0A, T_C= 150°C	-	0.895	-	1.1	-	1.2	V
t_{rr}	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A	-	25	-	25	-	50	ns
C_J	V_R=10V, f=1.0MHz	60	-	60	-	60	-	pF

CUDD8-02
CUDD8-04
CUDD8-08

SURFACE MOUNT SILICON
ULTRA FAST
RECOVERY RECTIFIERS
8.0 AMP, 200 THRU 800 VOLT

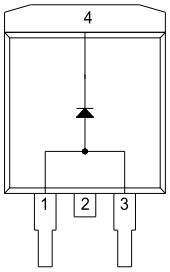
D²PAK CASE - MECHANICAL OUTLINE



R3

LEAD CODE:
1) Anode
2) Cathode
3) Anode
4) Cathode
Pin 2 is common to the tab (4).

MARKING:
FULL PART NUMBER



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.163	0.189	4.14	4.80
B	0.045	0.055	1.14	1.40
C	0.000	0.010	0.00	0.25
D	0.012	0.028	0.30	0.70
E	0.386	0.415	9.80	10.55
F	0.378	0.417	9.60	10.60
G	0.335	0.358	8.50	9.10
H	0.188	0.236	4.78	6.00
J	0.093	0.108	2.35	2.75
K	0.030	0.035	0.75	0.90

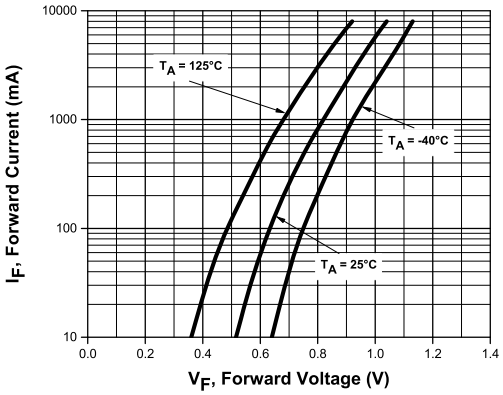
D2PAK (REV: R3)

CUDD8-02
CUDD8-04
CUDD8-08

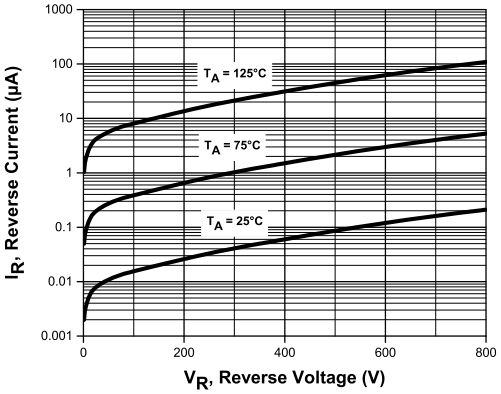
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TYPICAL ELECTRICAL CHARACTERISTICS

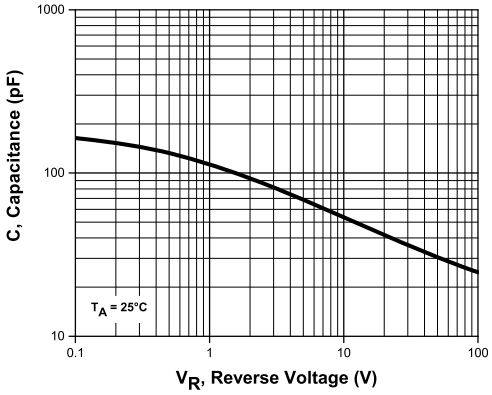
Forward Voltage



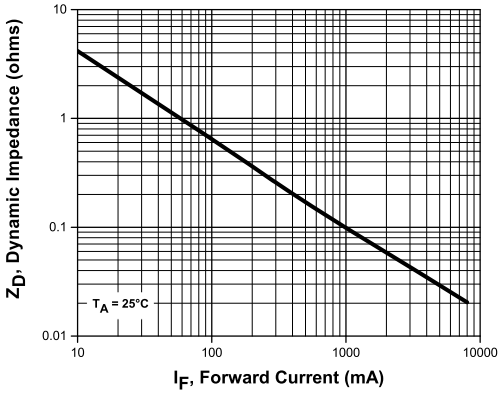
Leakage Current



Capacitance



Forward Dynamic Impedance

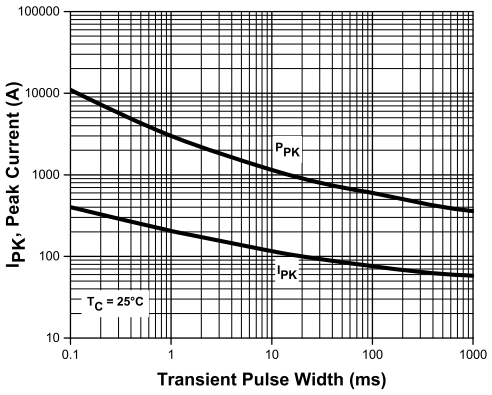


CUDD8-02
CUDD8-04
CUDD8-08

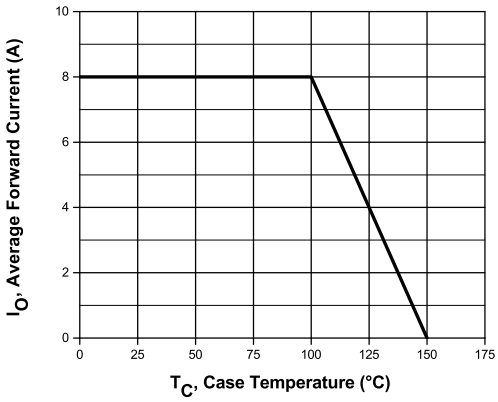
SURFACE MOUNT SILICON
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RECOVERY RECTIFIERS
8.0 AMP, 200 THRU 800 VOLT

TYPICAL ELECTRICAL CHARACTERISTICS

Transient Peak Power and Peak Current Capacity



Current Derating



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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