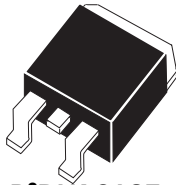


CUDD8-02
CUDD8-04
CUDD8-08

ULTRA FAST RECOVERY RECTIFIER
SINGLE, 8.0 AMPS, 200 THRU 800 VOLTS



D²PAK CASE

CentralTM
Semiconductor Corp.

FEATURES:

- HIGH RELIABILITY
- LOW FORWARD VOLTAGE
- HIGH CURRENT CAPABILITY
- HIGH SURGE CAPACITY
- UL FLAMMABILITY CLASSIFICATION 94V-0
- SUPERIOR LOT TO LOT CONSISTENCY
- ULTRA FAST RECOVERY TIME
- HIGH VOLTAGE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CUDD8-02 Series types are a Silicon Ultra-Fast Recovery Rectifier designed for surface mount ultra fast switching applications requiring a low forward voltage drop. To order devices on 24mm Tape and Reel (800/13" Reel), add TR13 suffix to part number.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^{\circ}\text{C}$ 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 ($T_C=100^{\circ}\text{C}$)	I_O		8.0		A
Peak Forward Surge Current (8.3ms)	I_{FSM}		125		A
Operating and Storage					
Junction Temperature	T_J, T_{stg}		-65 to +150		$^{\circ}\text{C}$
Typical Thermal Resistance	θ_{JC}		3.0		$^{\circ}\text{C/W}$
Typical Thermal Resistance	θ_{JA}		50		$^{\circ}\text{C/W}$

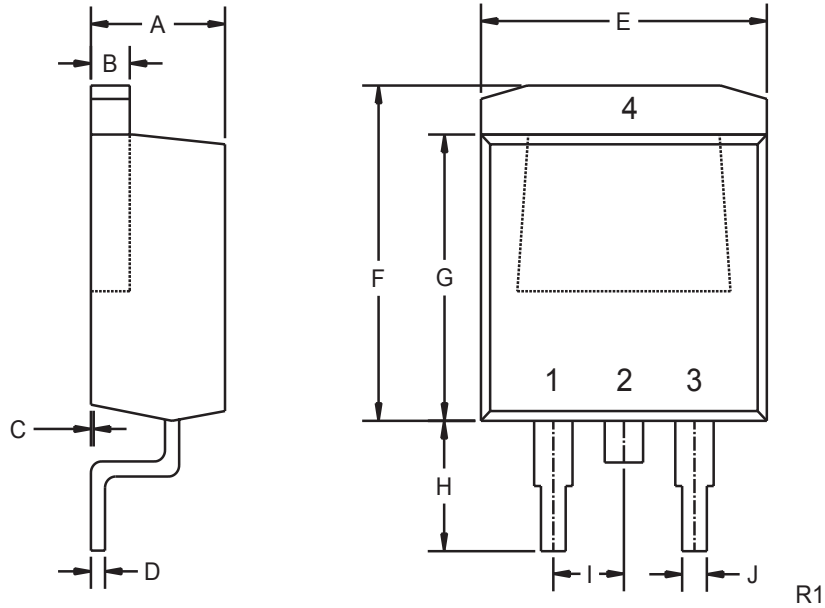
ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	CUDD8-02		CUDD8-04		CUDD8-08		UNITS
		TYP	MAX	TYP	MAX	TYP	MAX	
I_R	$V_R=\text{Rated } V_{RRM}$		5.0		10		10	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_C=150^{\circ}\text{C}$		250		500		500	μA
V_F	$I_F=8.0\text{A}$		0.975		1.3		1.5	V
V_F	$I_F=8.0\text{A}, T_C=150^{\circ}\text{C}$		0.895		1.1		1.2	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$		25		25		50	ns
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$	80		80		50		pF

R1 (26-September 2002)

**ULTRA FAST RECOVERY RECTIFIER
SINGLE, 8.0 AMPS, 200 THRU 800 VOLTS**

D²PAK RECTIFIER CASE - MECHANICAL OUTLINE

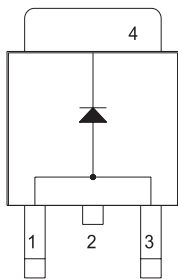


LEAD CODE:

- 1) ANODE
- 2) CATHODE
- 3) ANODE
- 4) CATHODE

PIN 2 IS COMMON TO THE TAB (4).

MARKING CODE: FULL PART NUMBER



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.173	0.189	4.39	4.80
B	0.047	0.055	1.19	1.40
C	± 0.012		± 0.30	
D	0.011	0.026	0.28	0.66
E	0.387	0.409	9.83	10.39
F	0.378	0.418	9.60	10.62
G	0.335	0.357	8.51	9.07
H	0.197	0.236	5.00	5.99
I	0.092	0.108	2.34	2.74
J	-	0.035	-	0.89

D2PAK (REV: R1)