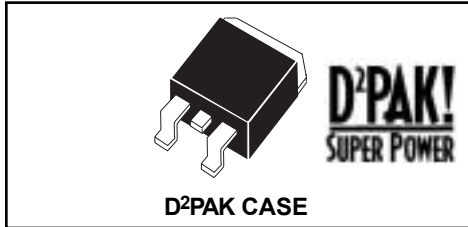


CUDD16-02A  
 CUDD16-04A  
 CUDD16-08A  
 SURFACE MOUNT  
 ULTRA FAST RECOVERY RECTIFIERS  
 DUAL, COMMON ANODE  
 16 AMP, 200 THRU 800 VOLTS



# Central<sup>TM</sup> Semiconductor Corp.

## FEATURES:

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

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CUDD16-02A 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.

## MAXIMUM RATINGS: (T<sub>C</sub>=25°C unless otherwise noted)

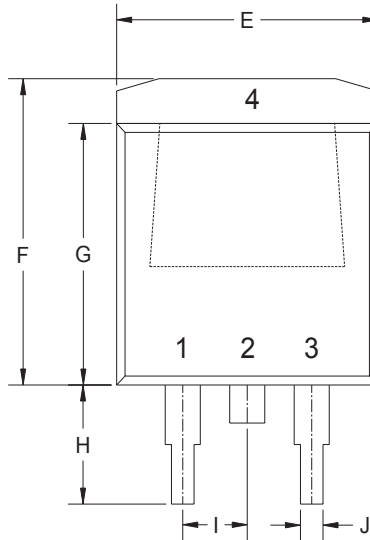
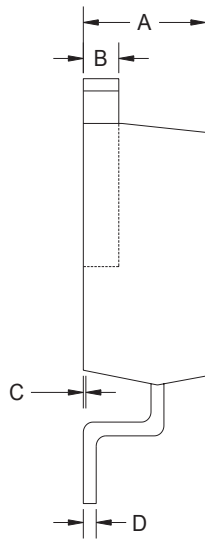
	SYMBOL	CUDD16 -02A	CUDD16 -04A	CUDD16 -08A	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	200	400	800	V
DC Blocking Voltage	V <sub>R</sub>	200	400	800	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	140	280	560	V
Average Forward Current (T <sub>C</sub> =100°C)	I <sub>O</sub>		16		A
Peak Forward Surge Current (8.3ms)	I <sub>FSM</sub>		125		A
Operating and Storage					
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>		-50 to +150		°C
Typical Thermal Resistance	θ <sub>JC</sub>		3.0		°C/W
Typical Thermal Resistance	θ <sub>JA</sub>		50		°C/W

## ELECTRICAL CHARACTERISTICS PER DIODE: (T<sub>C</sub>=25°C unless otherwise noted)

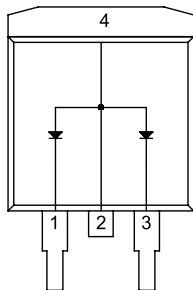
SYMBOL	TEST CONDITIONS	CUDD16-02A CUDD16-04A CUDD16-08A			UNITS			
		TYP	MAX	TYP		MAX	TYP	MAX
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>	5.0		10		10		μA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>C</sub> = 150°C	250		500		500		μA
V <sub>F</sub>	I <sub>F</sub> =8.0A	0.975		1.3		1.7		V
V <sub>F</sub>	I <sub>F</sub> =8.0A, T <sub>C</sub> = 150°C	0.895		1.1		1.4		V
t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	30		30		90		ns
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz	80		80		50		pF

R0 ( 31-August 2001)

D<sup>2</sup>PAK CASE - MECHANICAL OUTLINE



R1



SYMBOL	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)

LEAD CODE:

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

PIN 2 IS COMMON TO THE TAB(4)

R0 ( 31-August 2001)