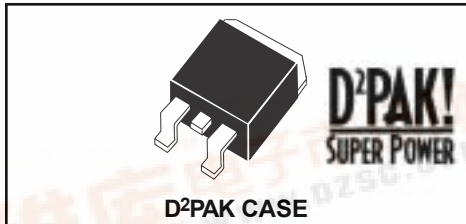


CUDD16-02A
CUDD16-04A
CUDD16-08A
SURFACE MOUNT
ULTRA FAST RECOVERY RECTIFIERS
DUAL, COMMON ANODE
16 AMP, 200 THRU 800 VOLTS



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

	SYMBOL	CUDD16-02A	CUDD16-04A	CUDD16-08A	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		16		A
Peak Forward Surge Current (8.3ms)	I_{FSM}		125		A
Operating and Storage					
Junction Temperature	T_J, T_{stg}		-50 to +150		$^\circ\text{C}$
Typical Thermal Resistance	θ_{JC}		3.0		$^\circ\text{C/W}$
Typical Thermal Resistance	θ_{JA}		50		$^\circ\text{C/W}$

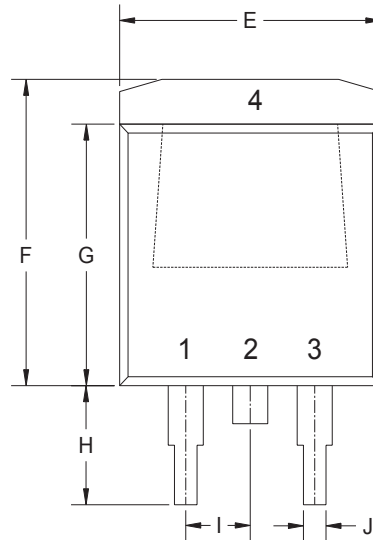
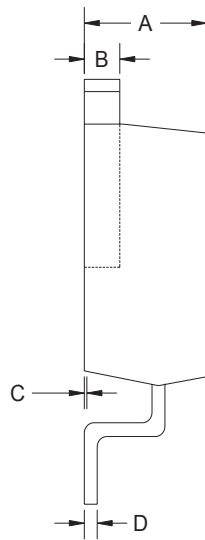
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	CUDD16-02A		CUDD16-04A		CUDD16-08A		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		1.7		V
V_F	$I_F=8.0\text{A}, T_C=150^\circ\text{C}$	0.895		1.1		1.4		V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	30		30		90		ns
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$	80		80		50		pF

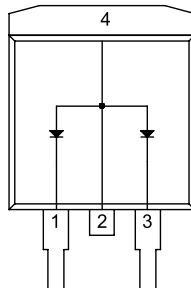
R0 (31-August 2001)

CUDD16-02A
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SURFACE MOUNT
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D²PAK CASE - MECHANICAL OUTLINE



R1



DIMENSIONS				
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)