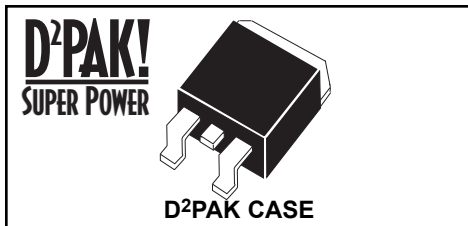


CUDD16-02C
 CUDD16-04C
 CUDD16-08C
 SURFACE MOUNT
 ULTRA FAST RECOVERY
 SILICON RECTIFIER
 DUAL, COMMON CATHODE
 16 AMPS, 200 THRU 800 VOLTS

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 CUDD16-02C Series types are Silicon Ultra-Fast Recovery Rectifiers 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)

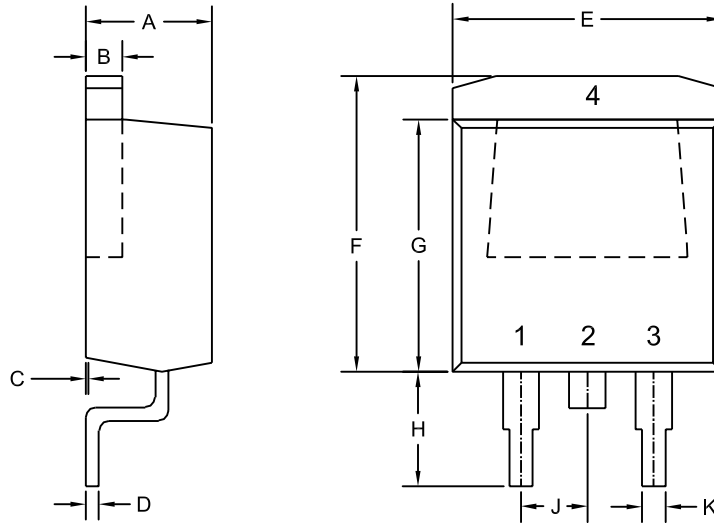
	SYMBOL	CUDD16 -02C	CUDD16 -04C	CUDD16 -08C	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	400	800	V
DC Blocking Voltage	V_R	200	400	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	560	V
Average Forward Current ($T_C=100^\circ\text{C}$)	I_O		16		A
Peak Forward Surge Current (8.3ms)	I_{FSM}		125		A
Operating and Storage					
Junction Temperature	T_J, T_{stg}		-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 PER DIODE: ($T_C=25^\circ\text{C}$ unless otherwise noted)

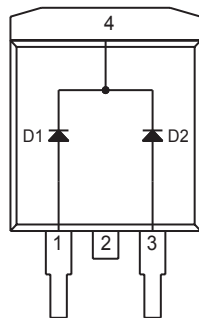
SYMBOL	TEST CONDITIONS	CUDD16-02C		CUDD16-04C		CUDD16-08C		UNITS
		TYP	MAX	TYP	MAX	TYP	MAX	
I_R	$V_R=Rated$ V_{RRM}		5.0		10		10	μA
I_R	$V_R=Rated$ $V_{RRM}, T_C=150^\circ\text{C}$		250		500		500	μA
V_F	$I_F=8.0\text{A}$		0.975		1.3		1.5	V
V_F	$I_F=8.0\text{A}, T_C=150^\circ\text{C}$		0.895		1.1		1.2	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

R3 (16-June 2004)

D²PAK RECTIFIER CASE - MECHANICAL OUTLINE



R2



LEAD CODE:

- 1) ANODE D1
- 2) CATHODE D1, D2
- 3) ANODE D2
- 4) CATHODE D1, D2

PIN 2 IS COMMON TO THE TAB (4)

MARKING CODE: FULL PART NUMBER

SYMBOL	INCHES		MILLIMETERS	
	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	0.409	9.80	10.40
F	0.378	0.417	9.60	10.60
G	0.335	0.358	8.50	9.10
H	0.197	0.236	5.00	6.00
J	0.093	0.108	2.35	2.75
K	0.030	0.035	0.75	0.90

D2PAK (REV: R2)