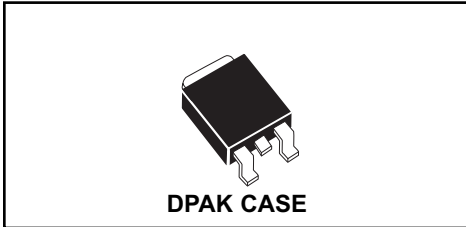


CUD10-02
CUD10-04
CUD10-06
SURFACE MOUNT
ULTRA FAST RECOVERY
SILICON RECTIFIER
SINGLE, 10 AMPS, 200 THRU 600 VOLTS

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 CUD10-02 Series types are a silicon ultra-fast recovery rectifiers designed for surface mount ultra fast switching applications requiring a low forward voltage drop.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

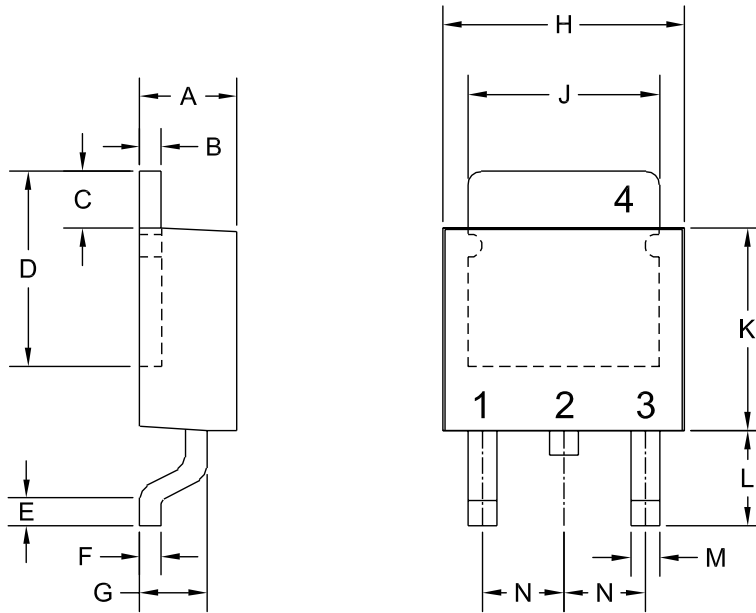
	SYMBOL	CUD10-02	CUD10-04	CUD10-06	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	400	600	V
DC Blocking Voltage	V_R	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Forward Current ($T_C=100^\circ\text{C}$)	I_O		10.0		A
Peak Forward Surge Current (8.3ms)	I_{FSM}		100		A
Operating and Storage					
Junction Temperature	T_J, T_{stg}		-65 to +150		$^\circ\text{C}$
Typical Thermal Resistance	θ_{JC}		3.0		$^\circ\text{C/W}$

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

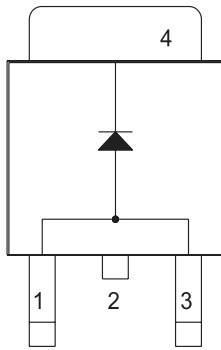
SYMBOL	TEST CONDITIONS	CUD10-02		CUD10-04		CUD10-06		UNITS
		TYP	MAX	TYP	MAX	TYP	MAX	
I_R	$V_R=\text{Rated } V_{RRM}$		10		10		10	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$		500		500		500	μA
V_F	$I_F=10\text{A}$		0.95		1.30		1.70	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$		35		35		35	ns
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$	62		62		62		pF

R1 (30-September 2005)

DPAK RECTIFIER CASE - MECHANICAL OUTLINE



R2



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	0.083	0.108	2.10	2.75
B	0.016	0.024	0.40	0.60
C	0.063		1.60	
D	0.203	0.219	5.15	5.55
E	0.039		1.00	
F	0.020		0.50	
G	0.051	0.071	1.30	1.80
H	0.248	0.268	6.30	6.80
J	0.197	0.217	5.00	5.50
K	0.209	0.224	5.30	5.70
L	0.090	0.106	2.30	2.70
M	0.012	0.031	0.30	0.80
N	0.091		2.30	