

CUD10-02
 CUD10-04
 CUD10-06

**SURFACE MOUNT
 ULTRA FAST RECOVERY
 SILICON RECTIFIER
 10 AMPS, 200 THRU 600 VOLTS**



www.centrasemi.com

DESCRIPTION:

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

MARKING: FULL PART NUMBER



DPAK RECTIFIER CASE

FEATURES:

- High Reliability
- Low Forward Voltage
- High Current Capability
- High Surge Capacity
- UL Flammability Classification 94V-O
- Superior Lot To Lot Consistency
- Ultra Fast Recovery Time
- High Voltage

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		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	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		$^\circ\text{C/W}$

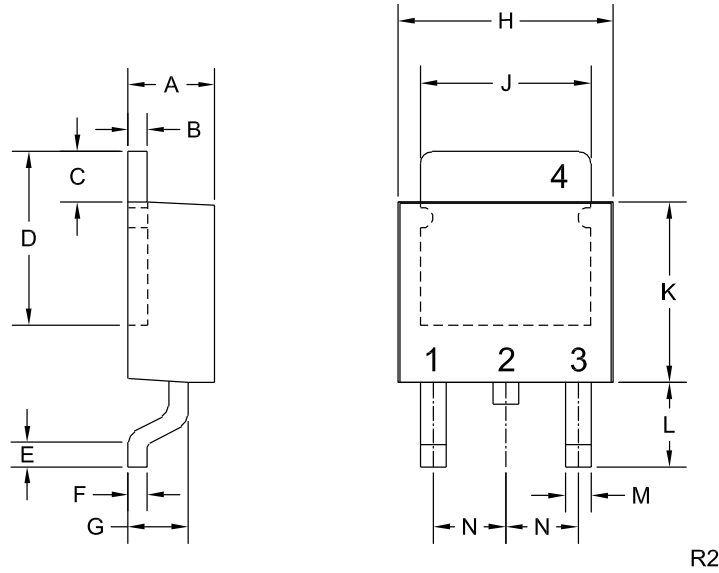
ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

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

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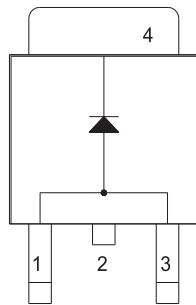
DPAK RECTIFIER CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Anode
 - 2) Cathode
 - 3) Anode
 - 4) Cathode
- Pin 2 is Common to the tab (4).

MARKING:
 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	

DPAK RECTIFIER (REV: R2)

R2 (19-February 2010)