

CUD10-02  
 CUD10-04  
 CUD10-06  
 SURFACE MOUNT SILICON  
 ULTRA FAST  
 RECOVERY RECTIFIERS  
 10 AMP, 200 THRU 600 VOLT

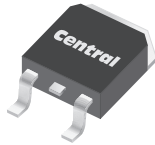


www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CUD10-02, CUD10-04 and CUD10-06 are silicon Ultra Fast Recovery rectifiers designed for ultra fast switching applications requiring a low forward voltage drop.

**MARKING: FULL PART NUMBER**



DPAK 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	$\theta_{JC}$		3.0		$^\circ\text{C/W}$

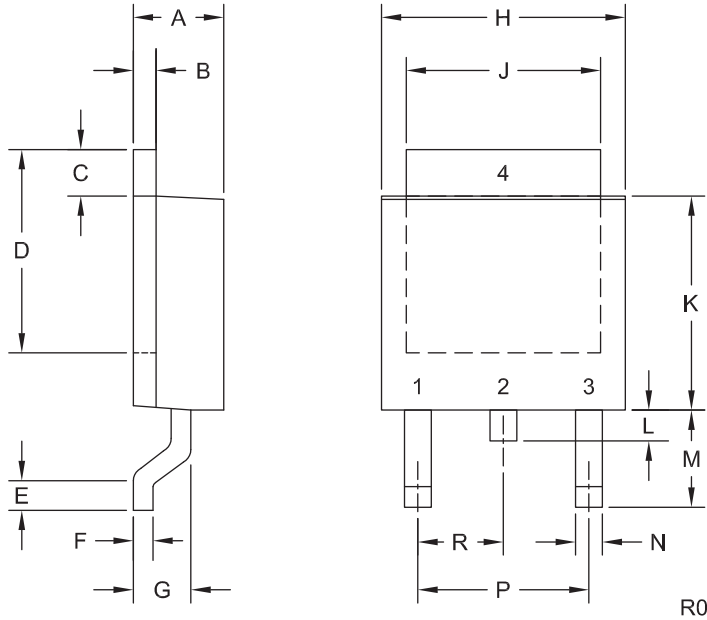
**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

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	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$	-	500	-	500	-	500	$\mu\text{A}$
$V_F$	$I_F=10\text{A}$	-	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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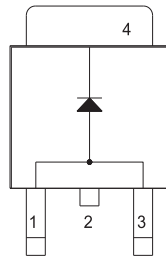
DPAK CASE - MECHANICAL OUTLINE



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	0.032	0.40	0.81
C	0.035	0.063	0.89	1.60
D	0.203	0.228	5.15	5.79
E	0.020	-	0.51	-
F	0.018	0.024	0.45	0.60
G	0.051	0.071	1.30	1.80
H	0.248	0.268	6.30	6.81
J	0.197	0.217	5.00	5.50
K	0.209	0.245	5.30	6.22
L	0.025	0.040	0.64	1.02
M	0.090	0.115	2.30	2.91
N	0.012	0.045	0.30	1.14
P	0.180		4.60	
R	0.090		2.30	

DPAK (REV: R0)

R3 (21-January 2013)