

CUD3-02

**SURFACE MOUNT SILICON
ULTRA FAST
RECOVERY RECTIFIER
4.0 AMP, 200 VOLT**



DPAK CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CUD3-02 is a silicon Ultra Fast Recovery rectifier designed for ultra fast switching applications requiring a low forward voltage drop.

MARKING: FULL PART NUMBER

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	V
Peak Non Repetitive Surge Reverse Voltage	V_{RSM}	200	V
Average Rectified Forward Current ($T_C=130^{\circ}\text{C}$)	I_O	4.0	A
Continuous Forward RMS Current	$I_F(\text{RMS})$	10	A
Peak Forward Surge Current, $t_p=10\text{ms}$	I_{FSM}	70	A
Critical Rate of Rise of Reverse Voltage	dv/dt	10,000	V/ μs
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	θ_{JC}	5.0	$^{\circ}\text{C}/\text{W}$

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

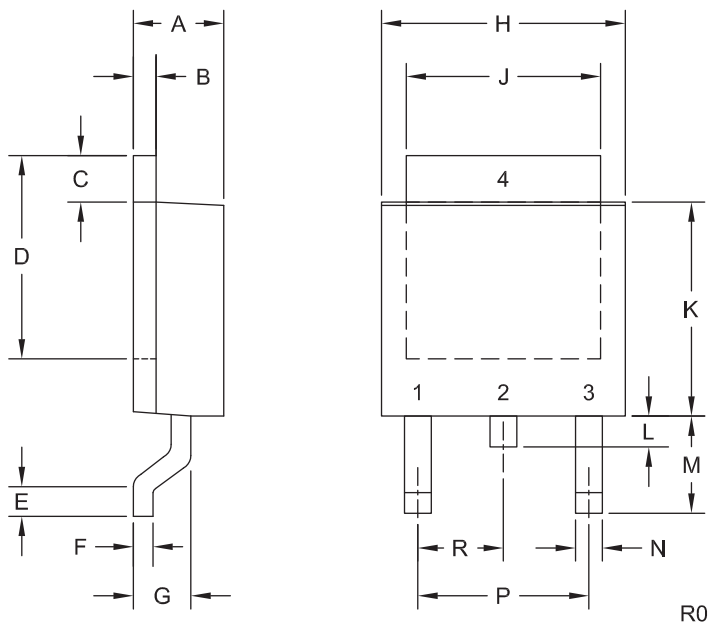
SYMBOL	TEST CONDITIONS	MAX	UNITS
I_R	$V_R=200\text{V}$	20	μA
I_R	$V_R=200\text{V}, T_C=100^{\circ}\text{C}$	500	μA
V_F	$I_F=12\text{A}$	1.25	V
V_F	$I_F=4.0\text{A}, T_C=100^{\circ}\text{C}$	0.85	V
t_{rr}	$V_R=30\text{V}, I_F=1.0\text{A}, di/dt=50\text{A}/\mu\text{s}$	35	ns

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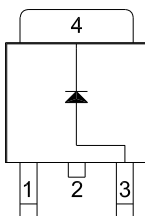
DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) No Connection
 - 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)

R8 (21-January 2013)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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