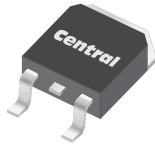


CUD3-02

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



**DPAK CASE**



[www.centrasemi.com](http://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)

	<b>SYMBOL</b>		<b>UNITS</b>
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/ $\mu\text{s}$
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	5.0	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=200\text{V}$	20	$\mu\text{A}$
$I_R$	$V_R=200\text{V}, T_C=100^\circ\text{C}$	500	$\mu\text{A}$
$V_F$	$I_F=12\text{A}$	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

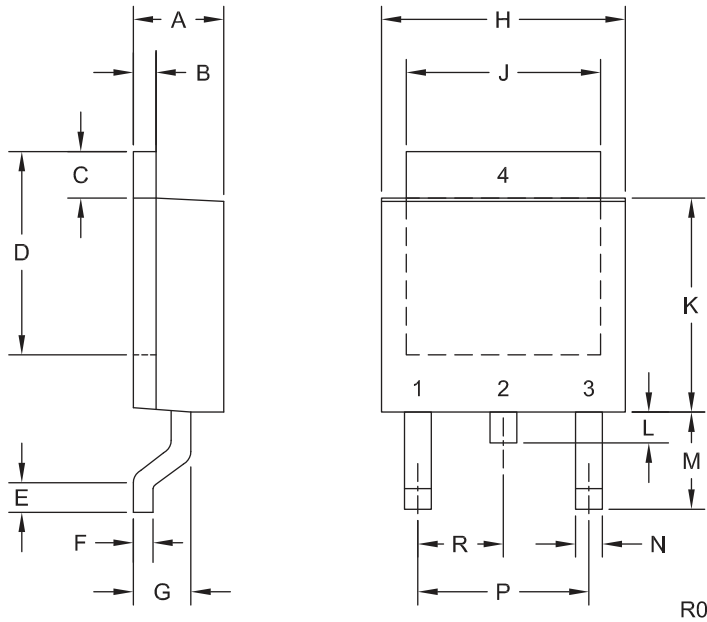
R8 (21-January 2013)

CUD3-02

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



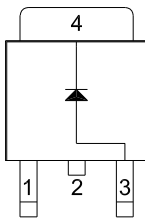
**DPAK CASE - MECHANICAL OUTLINE**



**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



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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