**CUD6-02C** 

SURFACE MOUNT SILICON DUAL, COMMON CATHODE ULTRA FAST RECOVERY RECTIFIER 6.0 AMP, 200 VOLT



www.centralsemi.com

# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CUD6-02C 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<sub>C</sub>=25°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 <sub>C</sub> =130°C)	IO	6.0	Α
Continuous Forward RMS Current	lF(RMS)	10	Α
Peak Forward Surge Current, tp=10ms	I <sub>FSM</sub>	70	Α
Critical Rate of Rise of Reverse Voltage	dv/dt	10,000	V/µs
Operating and Storage Junction Temperature	T <sub>J,</sub> T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{\rm JC}$	5.0	°C/W

**ELECTRICAL CHARACTERISTICS PER DIODE**: (T<sub>C</sub>=25°C unless otherwise noted)

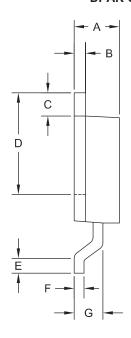
SYMBOL	TEST CONDITIONS	MAX	UNITS
$I_{R}$	V <sub>R</sub> =200V	20	μΑ
$I_R$	V <sub>R</sub> =200V, T <sub>C</sub> =100°C	500	μΑ
$V_{F}$	I <sub>F</sub> =10A	1.25	V
$V_{F}$	I <sub>F</sub> =5.0A, T <sub>C</sub> =100°C	0.85	V
t <sub>rr</sub>	$V_R$ =30V, $I_F$ =1.0A, di/dt=50A/ $\mu$ s	35	ns

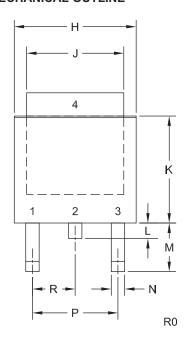
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# **DPAK CASE - MECHANICAL OUTLINE**



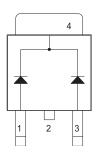


# LEAD CODE:

- 1) Anode 1
- 2) Cathode
- 3) Anode 2
- 4) Cathode

Pin 2 is common to the tab (4)

## MARKING: FULL PART NUMBER



DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
Α	0.083	0.108	2.10	2.75		
В	0.016	0.032	0.40	0.81		
С	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		
Н	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		
М	0.090	0.115	2.30	2.91		
N	0.012	0.045	0.30	1.14		
Р	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 guick 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

### 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).

#### **CONTACT US**

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