

CR8U-02FP  
CR8U-04FP  
CR8U-08FP

**ULTRA FAST RECOVERY RECTIFIERS  
8.0 AMP, 200 THRU 800 VOLT**



**TO-220FP-2 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CR8U-02FP series are silicon Ultra Fast Recovery rectifiers designed for ultra fast switching applications requiring a low forward voltage drop.

**MARKING: FULL PART NUMBER**

**FEATURES:**

- High reliability
- High current capability
- UL flammability classification 94V-O
- Ultra fast recovery time
- Low forward voltage
- High surge capacity
- High voltage

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

	SYMBOL	CR8U-02FP	CR8U-04FP	CR8U-08FP	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	800	V
DC Blocking Voltage	$V_R$	200	400	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	560	V
Average Forward Current ( $T_C=100^\circ\text{C}$ )	$I_O$		8.0		A
Peak Forward Surge Current ( $t_p=8.3\text{ms}$ )	$I_{FSM}$		125		A
Operating and Storage Junction Temperature	$T_J, T_{stg}$		-65 to +150		$^\circ\text{C}$
Typical Thermal Resistance	$\theta_{JA}$		15		$^\circ\text{C/W}$
Typical Thermal Resistance	$\theta_{JC}$		4.2		$^\circ\text{C/W}$

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

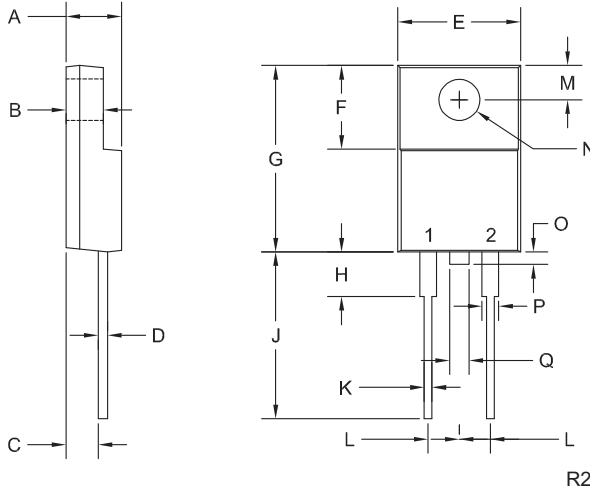
SYMBOL	TEST CONDITIONS	CR8U-02FP		CR8U-04FP		CR8U-08FP		UNITS
		TYP	MAX	TYP	MAX	TYP	MAX	
$I_R$	$V_R=\text{Rated } V_{RRM}$	-	5.0	-	10	-	10	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_C=150^\circ\text{C}$	-	250	-	500	-	500	$\mu\text{A}$
$V_F$	$I_F=8.0\text{A}$	-	0.975	-	1.3	-	1.5	V
$V_F$	$I_F=8.0\text{A}, T_C=150^\circ\text{C}$	-	0.895	-	1.1	-	1.2	V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	-	30	-	30	-	90	ns
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$	80	-	80	-	50	-	pF

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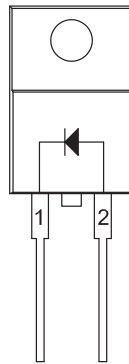


TO-220FP-2 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.189	-	4.80
B	-	0.123	-	3.12
C	0.098	0.114	2.50	2.90
D	-	0.032	-	0.81
E	-	0.406	-	10.31
F	0.248	0.272	6.30	6.90
G	0.583	0.606	14.80	15.40
H	-	0.161	-	4.10
J	0.512	0.543	13.00	13.80
K	-	0.035	-	0.90
L	0.100		2.55	
M	0.100	0.112	2.55	2.85
N (DIA)	0.118	0.134	3.00	3.40
O	-	0.063	-	1.60
P	-	0.055	-	1.40
Q	-	0.071	-	1.80

TO-220FP-2 (REV: R2)



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING:

FULL PART NUMBER

R4 (9-September 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

#### Corporate Headquarters & Customer Support Team

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**Worldwide Field Representatives:**  
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**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)



<http://www.centrasemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01098
<b>Notification Date:</b>	6/07/18
<b>Last Buy Date:</b>	12/07/18
<b>Last Shipment Date</b>	6/07/19

Summary: The CR8U-02FP series Ultra-Fast Recovery rectifiers are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CR8U-02FP	N/A
CR8U-04FP	N/A
CR8U-08FP	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to [engineering@centrasemi.com](mailto:engineering@centrasemi.com).

**DISCLAIMER:** This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.