

145 Adams Avenue, Hauppauge, NY 11788 USA Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

CR30U-010 SERIES

30 AMP ULTRA FAST RECOVERY SILICON RECTIFIER 100 THRU 800 VOLTS

**JEDEC DO-4 CASE** 

# **DESCRIPTION**

The CENTRAL SEMICONDUCTOR CR30U-010 Series types are 30 Amp stud mounted ultra fast recovery silicon rectifiers which are high quality, well constructed, highly reliable components designed for use in all types of military, commercial, industrial, entertainment, computer, and automotive applications.

MAXIMUM RATINGS (T<sub>C</sub> = 25 °C unless otherwise noted)

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		CR30U	CR30U	CR30U	CR30U	CR30U	CR30U	I
	SYMBOL	- <u>010</u>	<u>-015</u>	<u>-020</u>	<u>-040</u>	<u>-060</u>	<u>-080</u>	<u>UNITS</u>
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	150	200	400	600	800	٧
DC Blocking Voltage	$v_R$	100	150	200	400	600	800	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	70	105	140	280	420	560	V
Average Forward Current(T <sub>C</sub> = 120°C)		30	30	30	30	30	30	Α
Peak Forward Surge Current	<sup>I</sup> FSM	500	500	500	-	-	-	Α
Peak Forward Surge Current	<sup>I</sup> FSM	•	•	-	400	•	-	Α
Peak Forward Surge Current	<sup>I</sup> FSM	-	-	-	-	300	300	Α
Operating and Storage								
Junction Temperature	$T_J, T_stg$			-65 to +	175			°C
Thermal Resistance	θJC			1.8	3			°C/W

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

		CR30	U-010					
		CR30	U-015			CR30	U-060	
		CR30	U-020	CR30	U-040	CR30	U-080	
<u>SYMBOL</u>	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	<u>MAX</u>	<u>UNITS</u>
٧ <sub>F</sub>	I <sub>F</sub> = 30A		0.975		1.20		1.30	٧
I <sub>R</sub>	V <sub>R</sub> = Rated V <sub>RRM</sub>		25		25		25	μΑ
$\sf I_R$	$V_R = Rated V_{RRM}, T_C = 125$ °C		3.0		3.0		3.0	mA
t <sub>rr</sub>	$I_F = 0.5A$ , $I_R = 1.0A$ , Recov to 0.25A		35		50		75	ns

NOTE: Normal Polarity: Cathode to Stud (Case)

For Reverse Polarity add "R" Suffix (Ex: CR30U-040R)

# **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**

## Corporate Headquarters & Customer Support Team

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**Worldwide Distributors:** 

www.centralsemi.com/wwdistributors

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# Product End of Life Notification

PDN ID:	PDN01086
Notification Date:	5/04/18
Last Buy Date:	11/04/18
Last Shipment Date	5/04/19

Summary: All 30 Amp Ultra-Fast Recovery Rectifiers in the DO-4 package 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.

Central Part Number	Replacement
CR30U-020	N/A
CR30U-060	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@centralsemi.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.

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