

# Central<sup>TM</sup> Semiconductor Corp.

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)

	SYMBOL	CR30U -010	CR30U -015	CR30U -020	CR30U -040	CR30U -060	CR30U -080	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	150	200	400	600	800	V
DC Blocking Voltage	V <sub>R</sub>	100	150	200	400	600	800	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	70	105	140	280	420	560	V
Average Forward Current(T <sub>C</sub> = 120°C)	I <sub>O</sub>	30	30	30	30	30	30	A
Peak Forward Surge Current	I <sub>FSM</sub>	500	500	500	-	-	-	A
Peak Forward Surge Current	I <sub>FSM</sub>	-	-	-	400	-	-	A
Peak Forward Surge Current	I <sub>FSM</sub>	-	-	-	-	300	300	A
Operating and Storage								
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>				-65 to +175			°C
Thermal Resistance	θ <sub>JC</sub>				1.8			°C/W

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

SYMBOL	TEST CONDITIONS	CR30U-010		CR30U-015		CR30U-060		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
V <sub>F</sub>	I <sub>F</sub> = 30A		0.975		1.20		1.30	V
I <sub>R</sub>	V <sub>R</sub> = Rated V <sub>RRM</sub>		25		25		25	μA
I <sub>R</sub>	V <sub>R</sub> = Rated V <sub>RRM</sub> , T <sub>C</sub> = 125°C		3.0		3.0		3.0	mA
t <sub>rr</sub>	I <sub>F</sub> = 0.5A, I <sub>R</sub> = 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)