

# 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

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

ULTRA FAST RECOVERY RECTIFIERS  
SINGLE, 8.0 AMP, 200 THRU 800 VOLTS

TO-220FP-2 CASE

## FEATURES:

- HIGH RELIABILITY.
- HIGH CURRENT CAPABILITY.
- UL FLAMMABILITY CLASSIFICATION 94V-0.
- ULTRA FAST RECOVERY TIME.
- LOW FORWARD VOLTAGE.
- HIGH SURGE CAPACITY.
- SUPERIOR LOT TO LOT CONSISTENCY.
- HIGH VOLTAGE.

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CR8U-02FP Series types are a Silicon Ultra-Fast Recovery Rectifier designed for ultra fast switching applications requiring a low forward voltage drop.

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

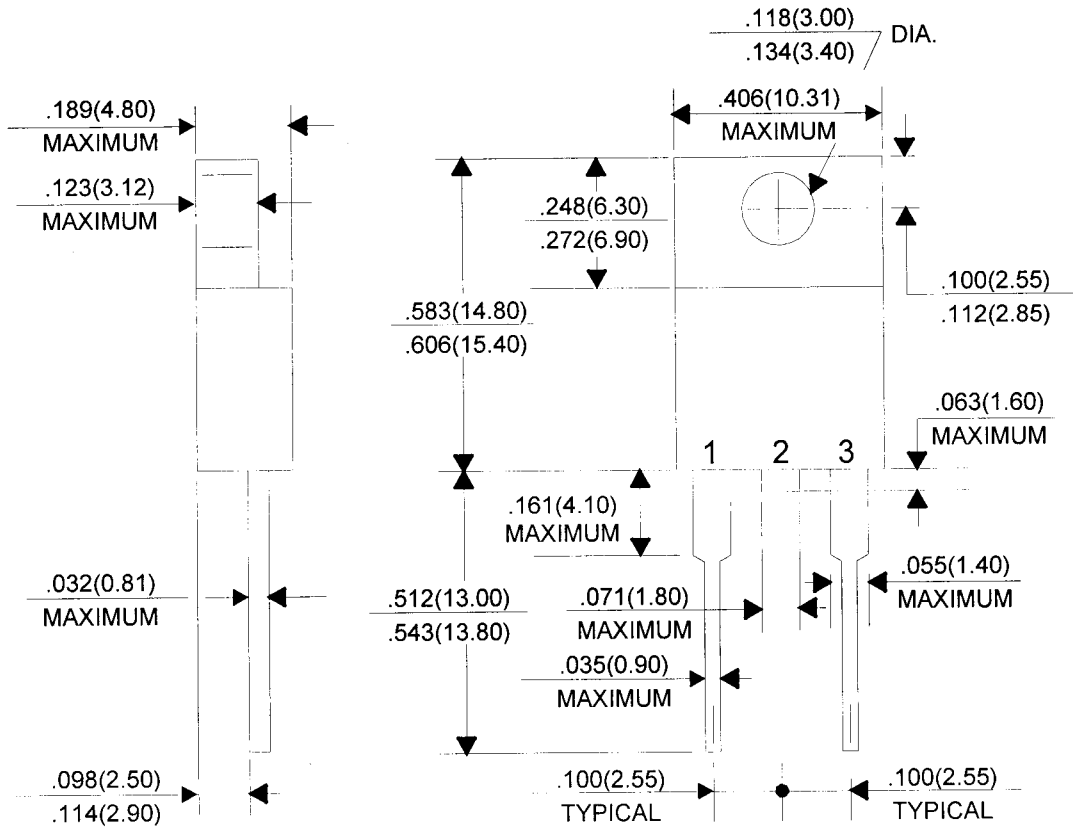
	<u>SYMBOL</u>	<u>CR8U-02FP</u>	<u>CR8U-04FP</u>	<u>CR8U-08FP</u>	<u>UNITS</u>
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	800	V
DC Blocking Voltage	$V_R$	200	400	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	560	V
Average Forward Current ( $T_C=100^\circ\text{C}$ )	$I_O$		8.0		A
Peak Forward Surge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

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

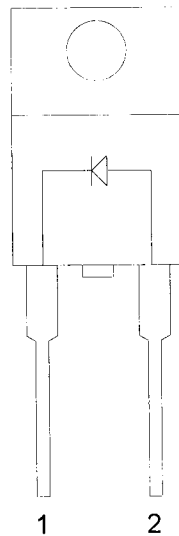
<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>CR8U-02FP</u>		<u>CR8U-04FP</u>		<u>CR8U-08FP</u>		<u>UNITS</u>
		<u>TYP</u>	<u>MAX</u>	<u>TYP</u>	<u>MAX</u>	<u>TYP</u>	<u>MAX</u>	
$I_R$	$V_R=\text{Rated } V_{RRM}$		5.0		10		10	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_C=150^\circ\text{C}$		250		500		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

(SEE REVERSE SIDE)

# TO-220FP-2 MECHANICAL OUTLINE



All Dimensions in Inches (mm).



LEAD CODE:

- 1) CATHODE
- 2) ANODE

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