

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
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Manufacturers of World Class Discrete Semiconductors

CR16UD-02FP
CR16UD-04FP
CR16UD-08FP

ULTRA FAST RECOVERY RECTIFIERS
DUAL, COMMON CATHODE
16 AMP, 200 THRU 800 VOLTS

TO-220FP 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 CR16UD-02FP Series types are a Silicon Ultra-Fast Recovery Rectifier designed for ultra fast switching applications requiring a low forward voltage drop.

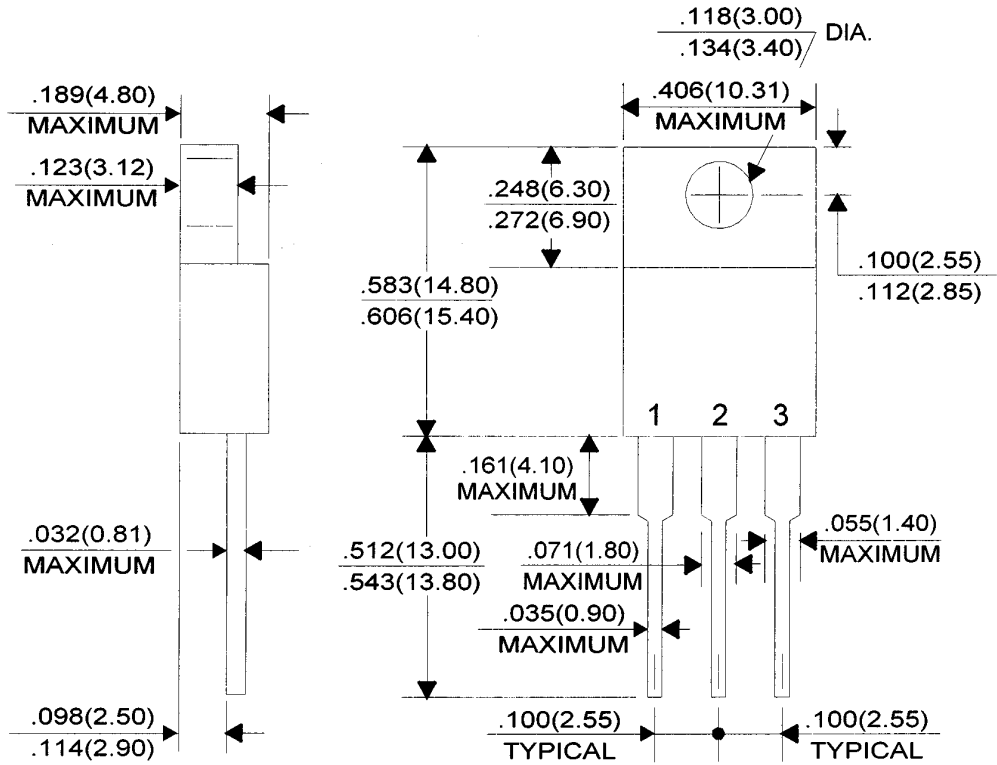
MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

	<u>SYMBOL</u>	<u>CR16UD -02FP</u>	<u>CR16UD -04FP</u>	<u>CR16UD -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		16		A
Peak Forward Surge Current (8.3ms)	I_{FSM}		125		A
Operating and Storage Junction Temperature	T_J, T_{stg}		-50 to +150		$^\circ\text{C}$
Typical Thermal Resistance	Θ_{JC}		3.0		$^\circ\text{C/W}$
Typical Thermal Resistance	Θ_{JA}		30		$^\circ\text{C/W}$

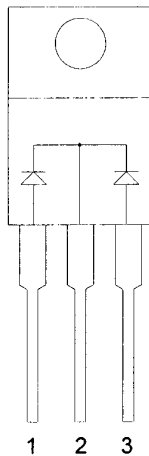
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_C=25^\circ\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>CR16UD -02FP</u>		<u>CR16UD -04FP</u>		<u>CR16UD -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	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_C=150^\circ\text{C}$		250		500		500	μA
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

TO-220FP MECHANICAL OUTLINE



All Dimensions in Inches (mm).



LEAD CODE:

- 1) ANODE#1
- 2) CATHODE
- 3) ANODE #2

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