

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

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



TO-220FP RECTIFIER CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CR16UD-02FP series types are dual, ultra fast recovery silicon 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-0
- Ultra fast recovery time
- Low forward voltage
- High surge capacity
- High voltage

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

	SYMBOL	CR16UD-02FP	CR16UD-04FP	CR16UD-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		16		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	θ_{JA}		30		$^\circ\text{C/W}$
Typical Thermal Resistance	θ_{JC}		3.0		$^\circ\text{C/W}$

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

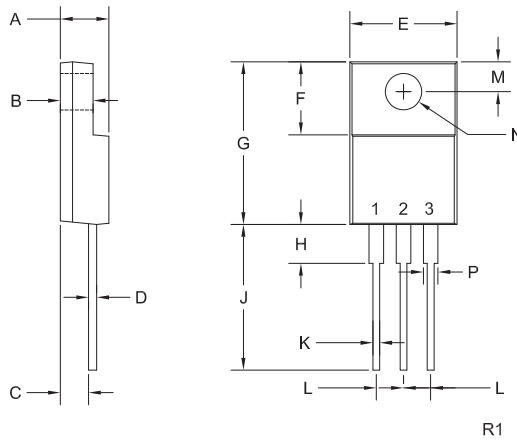
SYMBOL	TEST CONDITIONS	CR16UD-02FP		CR16UD-04FP		CR16UD-08FP		UNITS
		TYP	MAX	TYP	MAX	TYP	MAX	
I_R	$V_R=\text{Rated } V_{RRM}$	-	5.0	-	10	-	10	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_C=150^\circ\text{C}$	-	250	-	500	-	500	μA
V_F	$I_F=8.0\text{A}$	-	1.0	-	1.3	-	1.7	V
V_F	$I_F=8.0\text{A}, T_C=150^\circ\text{C}$	-	0.895	-	1.1	-	1.2	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	35	50	35	50	95	100	ns
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$	170	-	170	-	130	-	pF

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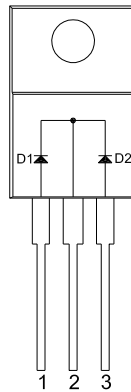


TO-220FP RECTIFIER CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.165	0.189	4.20	4.80
B	0.114	0.130	2.90	3.30
C	0.098	0.114	2.50	2.90
D	-	0.032	-	0.80
E	0.382	0.406	9.70	10.30
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	0.019	0.028	0.50	0.70
L	0.100		2.55	
M	0.100	0.112	2.55	2.85
N (DIA)	0.118	0.134	3.00	3.40
P	0.039	0.055	1.00	1.40

TO-220FP Rectifier (REV: R1)



LEAD CODE:

- 1) Anode D1
- 2) Cathode D1, D2
- 3) Anode D2

MARKING:

FULL PART NUMBER

R3 (15-June 2012)