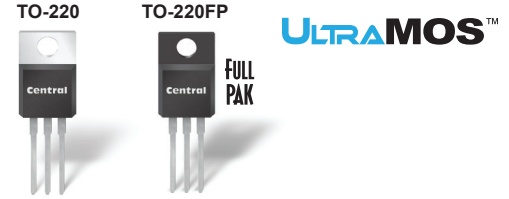


## CDM2206-800LR CDM22012-800LRFP 800V N-Channel UltraMOS™ Power MOSFETs



Central Semiconductor's **CDM2206-800LR** (6A in TO-220) and **CDM22012-800LRFP** (12A in TO-220FP) are N-Channel MOSFETs designed for high voltage, fast switching applications such as Power Factor Correction (PFC), Solid State Lighting (SSL), and power inverters. These MOSFETs combine high voltage capability with ultra low  $r_{DS(ON)}$ , low threshold voltage, and low gate charge for optimal efficiency.

### Features:

- High voltage capability
- Low gate charge
- Ultra low  $r_{DS(ON)}$

### Applications:

- Power Factor Correction (PFC)
- Solid State Lighting (SSL)
- Alternative energy inverters

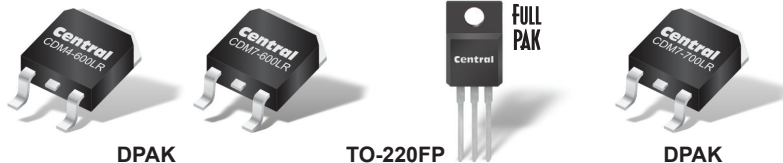
### Benefits:

- Energy efficiency
- High power density
- Industry standard packages

### Also available:

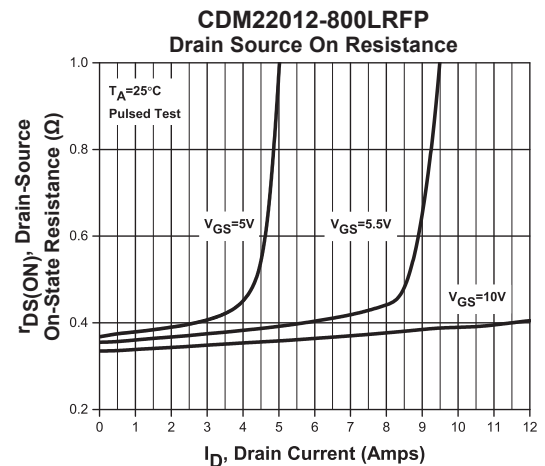
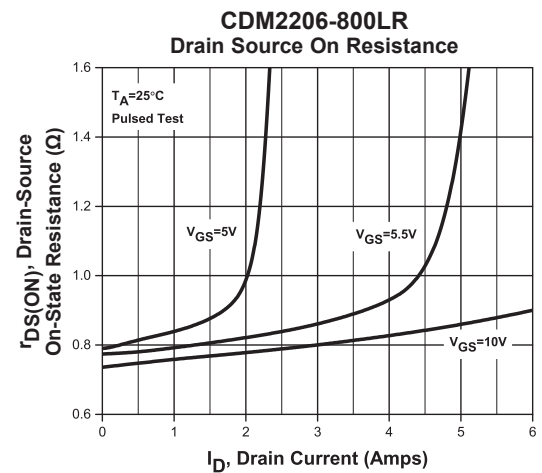
#### 600V-700V, Low $r_{DS(ON)}$ N-Channel MOSFETs

**CDM4-600LR** (4A, 600V)    **CDM7-600LR** (7A, 600V)    **CDM22011-600LRFP** (11A, 600V)    **CDM7-700LR** (7A, 700V)



[www.centrasemi.com/UltraMOS](http://www.centrasemi.com/UltraMOS)

### Typical Electrical Characteristics



Central Item No.	Maximum Ratings ( $T_A = 25^\circ\text{C}$ )				Electrical Characteristics: ( $T_A = 25^\circ\text{C}$ )										Case Type
	$I_D$	$P_D$	$T_J, T_{stg}$	$\Theta_{JA}$	$BV_{DSS}$	$V_{GS(th)}$		$r_{DS(ON)}$		$Q_{gs}$	$C_{iss}$	$C_{rss}$			
	(A)	(W)	( $^\circ\text{C}$ )	( $^\circ\text{C}/\text{W}$ )	(V)	MIN	MAX	( $\Omega$ )	( $\Omega$ )	(nC)	(pF)	(pF)			
	MAX	MAX	MAX	MAX	MIN	MIN	MAX	TYP	MAX	@ $V_{GS}$	@ $I_D$	TYP	TYP	TYP	
CDM2206-800LR	6.0	110	-55 to +150	62.5	800	2.0	4.0	0.8	0.95	10	3.0	*2.8	474.7	3.3	TO-220
CDM22012-800LRFP	12	40	-55 to +150	62.5	800	2.0	4.0	0.37	0.45	10	6.0	*7.6	1090	9.5	TO-220FP

\* Note: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

### Services:

- Bonded inventory
- Custom electrical screening
- Custom electrical characteristic curves
- SPICE models
- Custom packaging
- Package base options
- Custom device development/ Multi Discrete Modules (MDM™)

### Weblink/Samples:



For more information or to request samples visit:

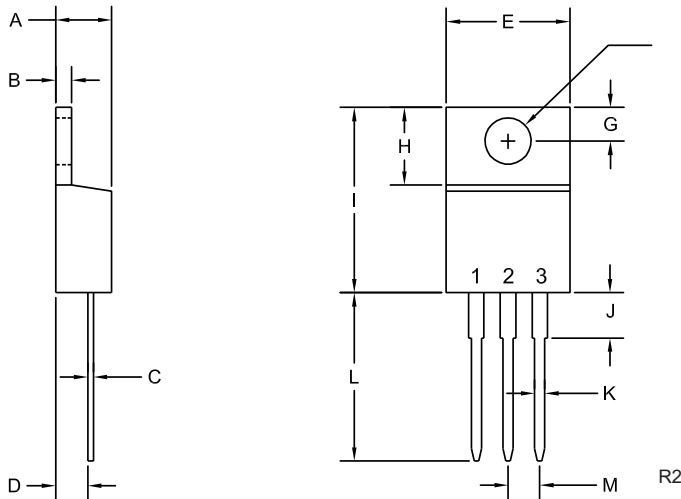


[www.centrasemi.com/info/UltraMOS](http://www.centrasemi.com/info/UltraMOS)

# CDM2206-800LR CDM22012-800LRFP

# 800V N-Channel UltraMOS™ Power MOSFETs

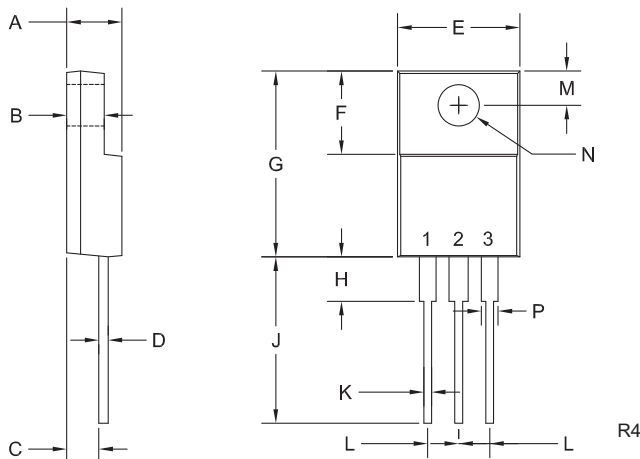
## Mechanical Drawing - TO-220



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.170	0.190	4.31	4.82
B	0.045	0.055	1.15	1.39
C	0.013	0.026	0.33	0.65
D	0.083	0.107	2.10	2.72
E	0.394	0.417	10.01	10.60
F (DIA)	0.140	0.157	3.55	4.00
G	0.100	0.118	2.54	3.00
H	0.230	0.270	5.85	6.85
I	0.560	0.625	14.23	15.87
J	-	0.250	-	6.35
K	0.025	0.038	0.64	0.96
L	0.500	0.579	12.70	14.70
M	0.090	0.110	2.29	2.79

TO-220 (REV: R2)

## Mechanical Drawing - TO-220FP



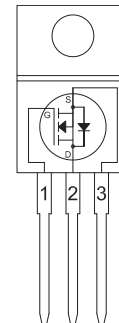
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.165	0.202	4.20	5.12
B	0.090	0.130	2.30	3.30
C	0.098	0.122	2.50	3.10
D	-	0.031	-	0.80
E	0.382	0.418	9.70	10.63
F	0.238	0.276	6.06	7.00
G	0.583	0.640	14.80	16.25
H	-	0.161	-	4.10
J	0.506	0.543	12.85	13.80
K	0.020	0.031	0.50	0.79
L	0.100		2.54	
M	0.120	0.140	3.05	3.55
N (DIA)	0.116	0.134	2.95	3.40
P	0.039	0.058	1.00	1.47

TO-220FP (REV: R4)

## Packaging Base / Ordering Information

Sleeve (Suffix SL)	Quantity	Central Item No.
	50	CDM2206-800LR SL
		CDM22012-800LRFP SL

## Pinout CDM2206-800LR CDM22012-800LRFP



### LEAD CODE:

- 1) Gate
- 2) Drain
- 3) Source

### MARKING CODE:

Full Part Number

Sample devices available upon request. To order samples visit: [www.centrasemi.com/info/UltraMOS](http://www.centrasemi.com/info/UltraMOS)



Rethink the Possibilities  
Discretes do Matter™

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Any Questions?  
(631) 435-1110 or visit:  
[www.centrasemi.com/justask](http://www.centrasemi.com/justask)

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PB 800V UltraMOS R0 (6/16)