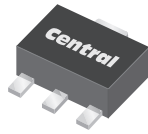


**CXDM3069N**  
**SURFACE MOUNT**  
**N-CHANNEL**  
**ENHANCEMENT-MODE**  
**SILICON MOSFET**



**SOT-89 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CXDM3069N is a high current N-channel enhancement-mode silicon MOSFET, designed for high speed pulsed amplifier and driver applications. This MOSFET offers high current, low  $r_{DS(ON)}$ , low threshold voltage, and low leakage current.

**MARKING: FULL PART NUMBER**

**APPLICATIONS:**

- Load/Power switches
- Power supply converter circuits
- Battery powered portable equipment

**FEATURES:**

- Low  $r_{DS(ON)}$  (50mΩ MAX @  $V_{GS}=2.5V$ )
- High current ( $I_D=6.9A$ )
- Logic level compatibility

**MAXIMUM RATINGS:** ( $T_A=25^\circ C$ )

Drain-Source Voltage
Gate-Source Voltage
Continuous Drain Current (Steady State)
Maximum Pulsed Drain Current, $t_p=10\mu s$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
$V_{DS}$	30	V
$V_{GS}$	12	V
$I_D$	6.9	A
$I_{DM}$	40	A
$P_D$	1.2	W
$T_J, T_{stg}$	-55 to +150	$^\circ C$
$\theta_{JA}$	104	$^\circ C/W$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ C$  unless otherwise noted)

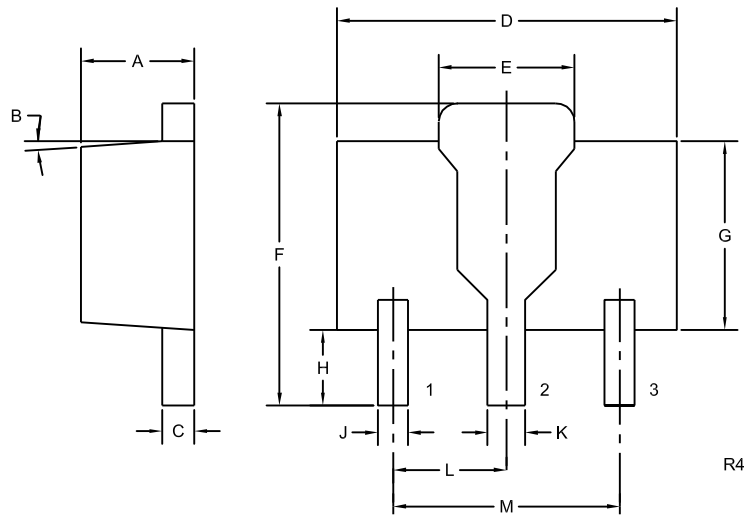
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{GSSF}, I_{GSSR}$	$V_{GS}=12V, V_{DS}=0$			100	nA
$I_{DSS}$	$V_{DS}=24V, V_{GS}=0$			1.0	$\mu A$
$BV_{DSS}$	$V_{GS}=0, I_D=250\mu A$	30			V
$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	0.7	0.9	1.4	V
$r_{DS(ON)}$	$V_{GS}=10V, I_D=7.0A$		25	30	mΩ
$r_{DS(ON)}$	$V_{GS}=4.5V, I_D=6.0A$		28	35	mΩ
$r_{DS(ON)}$	$V_{GS}=2.5V, I_D=4.0A$		38	50	mΩ
$Q_g(tot)$	$V_{DS}=15V, V_{GS}=10V, I_D=5.4A$		11		nC
$Q_{gs}$	$V_{DS}=15V, V_{GS}=10V, I_D=5.4A$		1.0		nC
$Q_{gd}$	$V_{DS}=15V, V_{GS}=10V, I_D=5.4A$		1.2		nC
$C_{rss}$	$V_{DS}=15V, V_{GS}=0, f=1.0MHz$		47		pF
$C_{iss}$	$V_{DS}=15V, V_{GS}=0, f=1.0MHz$		580		pF
$C_{oss}$	$V_{DS}=15V, V_{GS}=0, f=1.0MHz$		42		pF
$t_{on}$	$V_{DD}=15V, I_D=1.0A, R_G=15\Omega$		20		ns
$t_{off}$	$V_{DD}=15V, I_D=1.0A, R_G=15\Omega$		28		ns

R1 (10-August 2012)

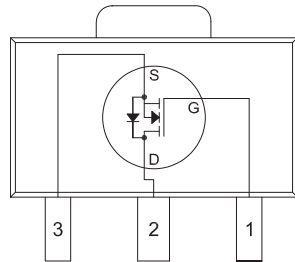
**CXDM3069N**  
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**SOT-89 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATION**



(Top View)  
 Tab is common to pin 2

**LEAD CODE:**

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

**MARKING: FULL PART NUMBER**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

R1 (10-August 2012)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

# Product End of Life Notification

<b>PDN ID:</b>	PDN01237
<b>Notification Date:</b>	7/27/22
<b>Last Buy Date:</b>	1/27/23
<b>Last Shipment Date</b>	7/27/23

Summary: The following items are discontinued and now considered End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

**\* All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

<b>Central Part Number</b>	<b>Suggested Replacement</b>
BCW31 BK	N/A
BCW31 TR	N/A
CMLT3474 BK	N/A
CMLT3474 TR	N/A
CMUD2836 BK	N/A
CMUD2836 TR	N/A
CMZ2361 BK	N/A
CMZ2361 TR	N/A
CXDM3069N BK	N/A
CXDM3069N TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my.centralsemi.com/submit-inquiry?type=ER> to submit an online inquiry.

**DISCLAIMER:** This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.