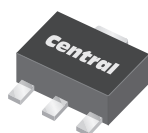


CXDM4060N
SURFACE MOUNT SILICON
N-CHANNEL
ENHANCEMENT-MODE
MOSFET



SOT-89 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CXDM4060N is a high current silicon N-Channel enhancement-mode 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 $r_{DS(ON)}$ (20m Ω TYP @ $V_{GS}=10V$)
- High current ($I_D=6.0A$)
- 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

V_{DS} 40
 V_{GS} 20
 I_D 6.0
 I_{DM} 20
 P_D 1.2
 T_J, T_{stg} -55 to +150
 θ_{JA} 104

UNITS

V
V
A
A
W
 $^\circ C$
 $^\circ C/W$

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

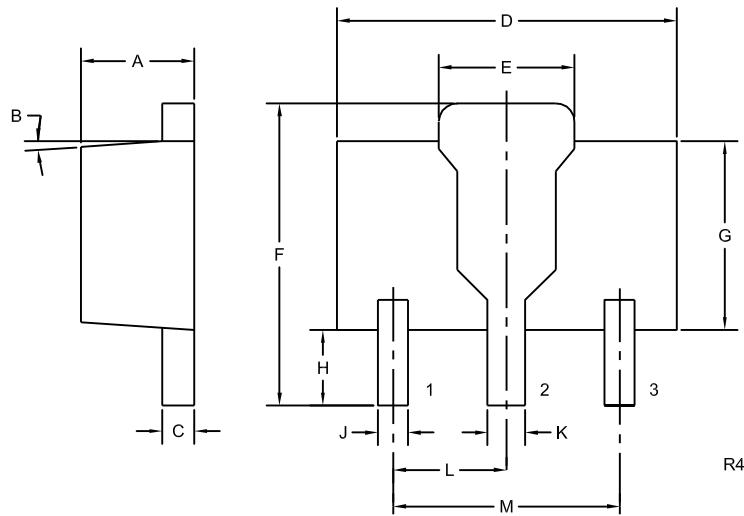
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{GSSF}, I_{GSSR}	$V_{GS}=20V, V_{DS}=0$			100	nA
I_{DSS}	$V_{DS}=32V, V_{GS}=0$			1.0	μA
BV_{DSS}	$V_{GS}=0, I_D=250\mu A$	40			V
$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	1.0	1.7	3.0	V
V_{SD}	$V_{GS}=0, I_S=1.0A$			1.0	V
$r_{DS(ON)}$	$V_{GS}=10V, I_D=6.0A$		20	31	m Ω
$r_{DS(ON)}$	$V_{GS}=4.5V, I_D=5.0A$		30	45	m Ω
$Q_{g(tot)}$	$V_{DS}=20V, V_{GS}=10V, I_D=6.0A$		12		nC
Q_{gs}	$V_{DS}=20V, V_{GS}=10V, I_D=6.0A$		2.0		nC
Q_{gd}	$V_{DS}=20V, V_{GS}=10V, I_D=6.0A$		2.2		nC
C_{rss}	$V_{DS}=20V, V_{GS}=0, f=1.0MHz$		64		pF
C_{iss}	$V_{DS}=20V, V_{GS}=0, f=1.0MHz$		730		pF
C_{oss}	$V_{DS}=20V, V_{GS}=0, f=1.0MHz$		58		pF
t_{on}	$V_{DS}=20V, V_{GS}=10V, I_D=1.0A$		27		ns
t_{off}	$R_G=3.0\Omega, R_L=3.3\Omega$		33		ns

CXDM4060N

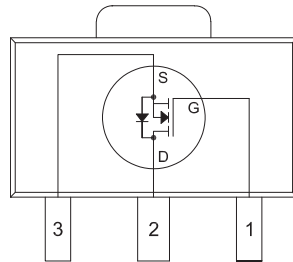
SURFACE MOUNT SILICON
N-CHANNEL
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MOSFET



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

DIMENSIONS				
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)

R2 (1-April 2013)

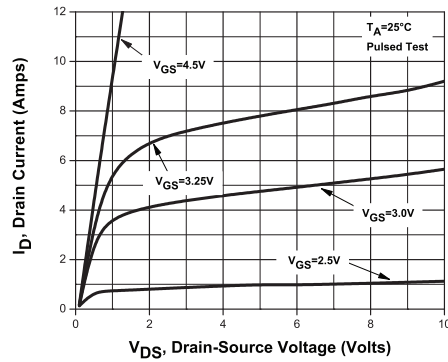
CXDM4060N

SURFACE MOUNT SILICON
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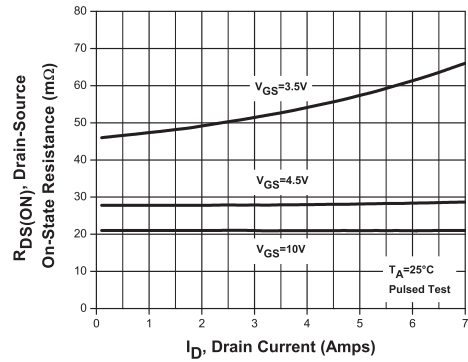


TYPICAL ELECTRICAL CHARACTERISTICS

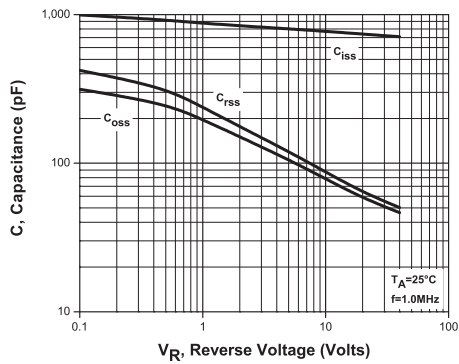
Output Characteristics



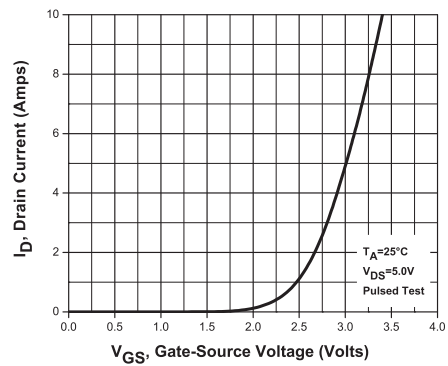
Drain Source On Resistance



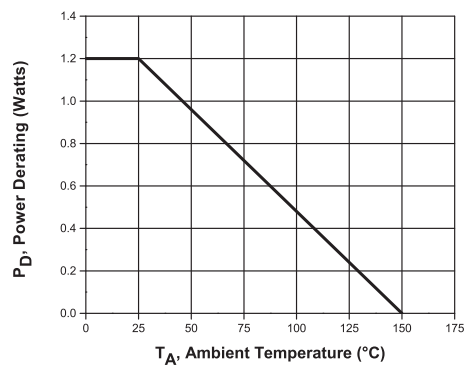
Capacitance



Transfer Characteristics



Power Derating



R2 (1-April 2013)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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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