



CMUDM7001

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

ULTRAmimi™



SOT-523 CASE

APPLICATIONS:

- Load/Power Switches
- Power Supply Converter Circuits
- Battery Powered Portable Equipment

MAXIMUM RATINGS: (T_A=25°C)

Drain-Source Voltage	V _{DS}	20	V
Gate-Source Voltage	V _{GS}	10	V
Continuous Drain Current (Steady State)	I _D	100	mA
Continuous Drain Current	I _D	200	mA
Power Dissipation	P _D	250	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C

**Central™
Semiconductor Corp.**

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUDM7001 is an Enhancement-mode N-Channel Field Effect Transistor, manufactured by the N-Channel DMOS Process, designed for high speed pulsed amplifier and driver applications. This MOSFET offers Low r_{DS(on)} and Low Theshold Voltage.

MARKING CODE: C7A

FEATURES:

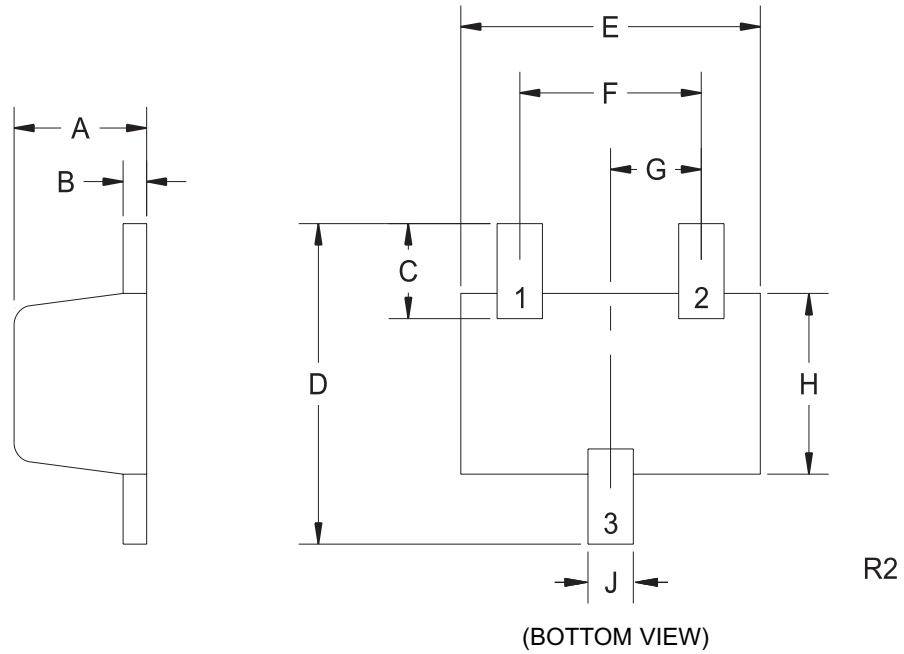
- Power Dissipation 250mW
- Low r_{DS(on)}
- Low Threshold Voltage
- Logic Level Compatible
- Small, SOT-523 Surface Mount Package
- Complementary Device: CMUDM8001

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{GSSF}	V _{GS} =10V, V _{DS} =0V			1.0	μA
I _{GSSR}	V _{GS} =10V, V _{DS} =0V			1.0	μA
I _{DSS}	V _{DS} =20V, V _{GS} =0V			1.0	μA
BV _{DSS}	V _{GS} =0V, I _D =100μA	20			V
V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.6		0.9	V
r _{DS(ON)}	V _{GS} =4.0V, I _D =10mA			3.0	Ω
r _{DS(ON)}	V _{GS} =2.5V, I _D =10mA			4.0	Ω
r _{DS(ON)}	V _{GS} =1.5V, I _D =1.0mA			15	Ω
g _{fs}	V _{DS} =10V, I _D =100mA	100			mS
C _{rss}	V _{DS} =3.0V, V _{GS} =0, f=1.0MHz		4.0		pF
C _{iss}	V _{DS} =3.0V, V _{GS} =0, f=1.0MHz		9.0		pF
C _{oss}	V _{DS} =3.0V, V _{GS} =0, f=1.0MHz		9.5		pF
t _{on}	V _{DD} =3.0V, V _{GS} =2.5V, I _D =10mA		50		ns
t _{off}	V _{DD} =3.0V, V _{GS} =2.5V, I _D =10mA		75		ns

R0 (4-March 2008)

SOT-523 - MECHANICAL OUTLINE



LEAD CODE:

- 1) GATE
- 2) SOURCE
- 3) DRAIN

MARKING CODE: C7A

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)