

CMNDM7001

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



www.centrasemi.com

FEMTOmini™



**SOT-953 CASE**

• Device is *Halogen Free* by design

**APPLICATIONS:**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMNDM7001 is an Enhancement-mode N-Channel MOSFET, 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 Threshold Voltage.

**MARKING CODE: AC**

**FEATURES:**

- Low 0.5mm Package Profile
- Low  $r_{DS(ON)}$
- Low Threshold Voltage
- Logic Level Compatible
- Small, FEMTOmini™ 1.0 x 0.8mm, SOT-953 Surface Mount Package

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

Drain-Source Voltage
Gate-Source Voltage
Continuous Drain Current (Steady State)
Continuous Drain Current
Power Dissipation
Operating and Storage Junction Temperature

**SYMBOL**

$V_{DS}$	20
$V_{GS}$	10
$I_D$	100
$I_D$	200
$P_D$	250
$T_J, T_{stg}$	-65 to +150

**UNITS**

V
V
mA
mA
mW
°C

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

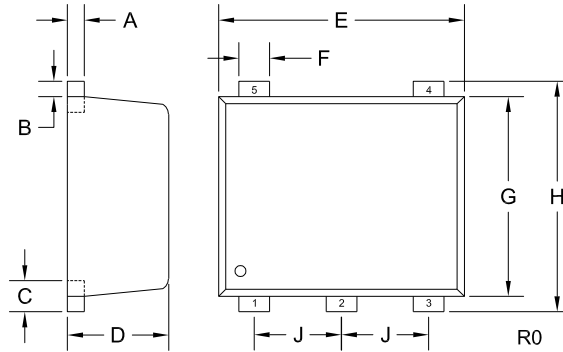
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{GSSF}, I_{GSSR}$	$V_{GS}=10V, V_{DS}=0$			1.0	$\mu\text{A}$
$I_{DSS}$	$V_{DS}=20V, V_{GS}=0$			1.0	$\mu\text{A}$
$BV_{DSS}$	$V_{GS}=0, I_D=100\mu\text{A}$	20			V
$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	0.6		0.9	V
$r_{DS(ON)}$	$V_{GS}=4.0V, I_D=10\text{mA}$			3.0	$\Omega$
$r_{DS(ON)}$	$V_{GS}=2.5V, I_D=10\text{mA}$			4.0	$\Omega$
$r_{DS(ON)}$	$V_{GS}=1.5V, I_D=1.0\text{mA}$			15	$\Omega$
$g_{fs}$	$V_{DS}=10V, I_D=100\text{mA}$	100			mS
$C_{rss}$	$V_{DS}=3.0V, V_{GS}=0, f=1.0\text{MHz}$		4.0		pF
$C_{iss}$	$V_{DS}=3.0V, V_{GS}=0, f=1.0\text{MHz}$		9.0		pF
$C_{oss}$	$V_{DS}=3.0V, V_{GS}=0, f=1.0\text{MHz}$		9.5		pF
$t_{on}$	$V_{DD}=3.0V, V_{GS}=2.5V, I_D=10\text{mA}$		50		ns
$t_{off}$	$V_{DD}=3.0V, V_{GS}=2.5V, I_D=10\text{mA}$		75		ns

R1 (25-January 2010)

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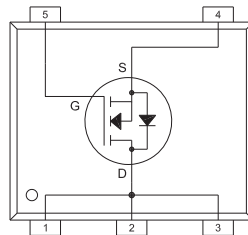
**SOT-953 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.006	0.050	0.150
B	0.002	0.006	0.050	0.150
C	0.005	0.007	0.125	0.175
D	0.016	0.020	0.400	0.500
E	0.037	0.041	0.950	1.050
F	0.004	0.008	0.100	0.200
G	0.030	0.033	0.750	0.850
H	0.037	0.041	0.950	1.050
J	0.014		0.350	

SOT-953 (REV: R0)

**PIN CONFIGURATION**



**LEAD CODE:**

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

**MARKING CODE: AC**

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