CMNDM8001

SURFACE MOUNT
P-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFET

FEMTOmini™

SOT-953 CASE

• Device is *Halogen Free* by design

APPLICATIONS:

• Load/Power Switches

• Power Supply Converter Circuits

• Battery Powered Portable Equipment

Central
Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMNDM8001 is an Enhancement-mode P-Channel MOSFET, manufactured by the P-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: BC

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°C)

	SYMBOL		UNITS
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

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)
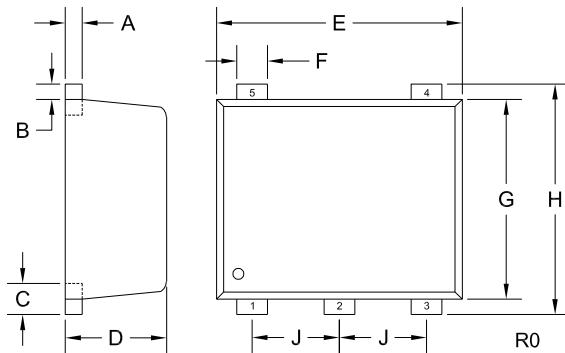
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{GSSF}, I_{GSSR}	V_{GS}=10V, V_{DS}=0			1.0	µA
I_{DSS}	V_{DS}=20V, V_{GS}=0			1.0	µA
BV_{DSS}	V_{GS}=0, I_D=100µA	20			V
$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250µA	0.6		1.1	V
$r_{DS(ON)}$	V_{GS}=4.0V, I_D=10mA			8.0	Ω
$r_{DS(ON)}$	V_{GS}=2.5V, I_D=10mA			12	Ω
$r_{DS(ON)}$	V_{GS}=1.5V, I_D=1.0mA			45	Ω
g_{fs}	V_{DS}=10V, I_D=100mA	100			mS
C_{rss}	V_{DS}=3.0V, V_{GS}=0, f=1.0MHz		15		pF
C_{iss}	V_{DS}=3.0V, V_{GS}=0, f=1.0MHz		45		pF
C_{oss}	V_{DS}=3.0V, V_{GS}=0, f=1.0MHz		15		pF
t_{on}	V_{DD}=3.0V, V_{GS}=2.5V, I_D=10mA		35		ns
t_{off}	V_{DD}=3.0V, V_{GS}=2.5V, I_D=10mA		80		ns

R1 (25-January 2010)

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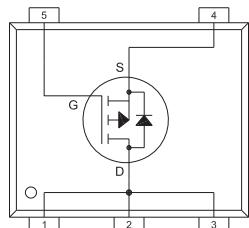
SOT-953 CASE - MECHANICAL OUTLINE

	DIMENSIONS			
SYMBOL	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: BC

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