



**CEDM8001**

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



**SOT-883L CASE**

# Central<sup>TM</sup> Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CEDM8001 is an Enhancement-mode P-Channel Field Effect Transistor, 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: F**

**FEATURES:**

- Power Dissipation 100mW
- Low Package Profile, 0.4mm
- Low  $r_{DS(on)}$
- Low Threshold Voltage
- Logic Level Compatible
- Small, TLP<sup>TM</sup> 1x0.6mm, SOT-883L Leadless Surface Mount Package

**APPLICATIONS:**

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

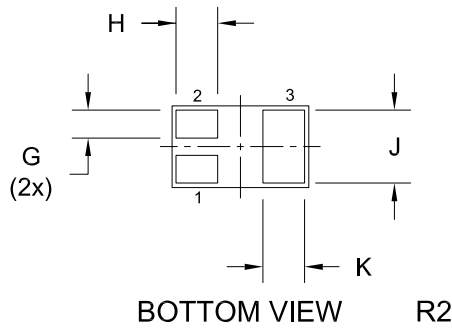
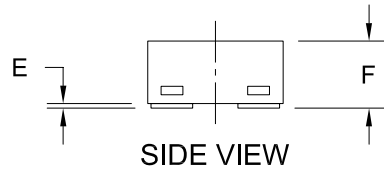
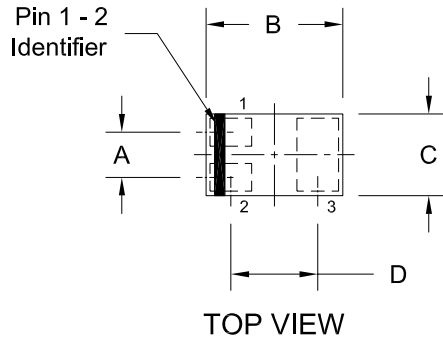
**MAXIMUM RATINGS:** ( $T_A=25^{\circ}C$ )

	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	$P_D$	100	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}C$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{GSSF}$	$V_{GS}=10V, V_{DS}=0V$			1.0	$\mu A$
$I_{GSSR}$	$V_{GS}=10V, V_{DS}=0V$			1.0	$\mu A$
$I_{DSS}$	$V_{DS}=20V, V_{GS}=0V$			1.0	$\mu A$
$BV_{DSS}$	$V_{GS}=0V, I_D=100\mu A$	20			V
$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.6		1.1	V
$r_{DS(ON)}$	$V_{GS}=4.0V, I_D=10mA$			8	$\Omega$
$r_{DS(ON)}$	$V_{GS}=2.5V, I_D=10mA$			12	$\Omega$
$r_{DS(ON)}$	$V_{GS}=1.5V, I_D=1.0mA$			45	$\Omega$
$g_{fs}$	$V_{DS}=10V, I_D=100mA$	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

**SOT-883L - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.014		0.35	
B	0.037	0.041	0.95	1.05
C	0.022	0.026	0.55	0.65
D	0.026		0.65	
E	0.000	0.002	0.00	0.05
F	0.012	0.016	0.30	0.40
G	0.005	0.007	0.13	0.18
H	0.008	0.012	0.20	0.30
J	0.018	0.022	0.45	0.55
K	0.008	0.012	0.20	0.30

SOT-883L (REV:R2)

**LEAD CODE:**

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