



CEDM8001

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

TLP Tiny
Leadless
Package



SOT-883L CASE

CentralTM 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 Theshold Voltage.

MARKING CODE: F

FEATURES:

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

APPLICATIONS:

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

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

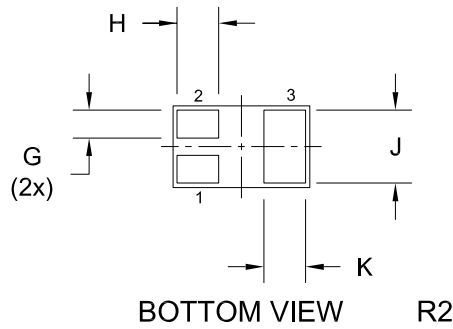
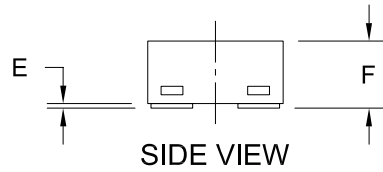
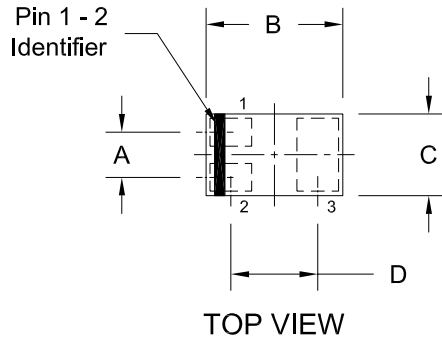
	SYMBOL		UNITS
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	10	V
Continuous Drain Current (Steady State)	I_D	100	mA
Continuous Drain Current	I_D	200	mA
Power Dissipation	P_D	100	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}C$

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	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}	$V_{GS}=0V, I_D=100\mu A$	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	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

R3 (29-February 2008)

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

R3 (29-February 2008)