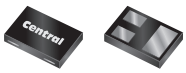
CEDM8001VL

SURFACE MOUNT SILICON P-CHANNEL ENHANCEMENT-MODE MOSFET



Top View Bottom View

SOT-883VL CASE

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CEDM8001VL is a P-Channel Enhancement-mode MOSFET packaged in the very low profile SOT-883VL case. The device is designed for space constrained high speed amplifier and driver applications where package height is a critical design element. This MOSFET offers low $r_{DS(ON)}$ and low gate charge.

MARKING CODE: 8

COMPLEMENTARY N-CHANNEL: CEDM7001VL

FEATURES:
- 100mW Power Dissipation
- 0.32mm very low package profile
- Low $r_{DS(ON)}$
- Low threshold voltage
- Logic level compatible
- Small leadless surface mount package

APPLICATIONS:
- Load/Power switches
- DC-DC converters
- Battery powered portable equipment

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	100	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C

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

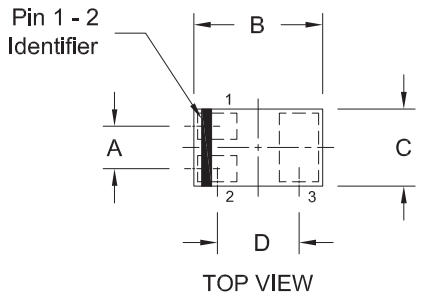
SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{GSSF}, I_{GSSR}	V_{GS}=10V, V_{DS}=0			1.0	μA
I_{DSS}	V_{DS}=20V, V_{GS}=0			1.0	μA
BV_{DSS}	V_{GS}=0, I_D=100μA	20			V
$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	0.6		1.1	V
$r_{DS(ON)}$	V_{GS}=4.0V, I_D=10mA		1.9	8.0	Ω
$r_{DS(ON)}$	V_{GS}=2.5V, I_D=10mA		2.4	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
$Q_{g(tot)}$	V_{DS}=10V, V_{GS}=4.5V, I_D=100mA		0.658		nC
Q_{gs}	V_{DS}=10V, V_{GS}=4.5V, I_D=100mA		0.158		nC
Q_{gd}	V_{DS}=10V, V_{GS}=4.5V, I_D=100mA		0.181		nC
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

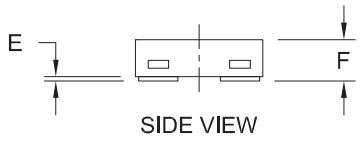
R2 (11-September 2014)

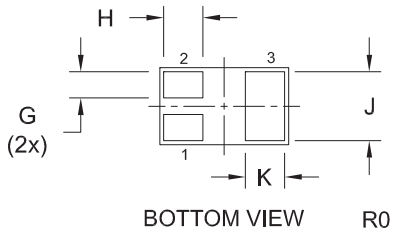
CEDM8001VL

SURFACE MOUNT SILICON P-CHANNEL ENHANCEMENT-MODE MOSFET

SOT-883VL CASE - MECHANICAL OUTLINE







DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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	0.013	0.30	0.32
G	0.004	0.008	0.10	0.20
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-883VL (REV:R0)

LEAD CODE:
1) Gate
2) Source
3) Drain

MARKING CODE: 8

Package Type Options (all dimensions are maximum - in mm)

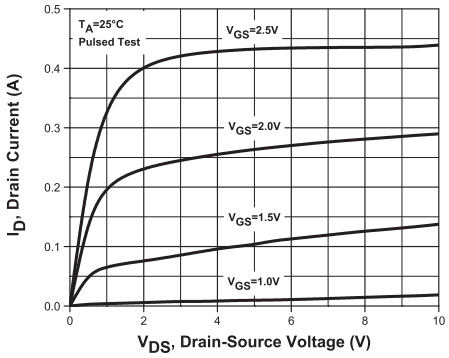
Package	Length	Width	Height	P_D (mW)	Central Item Number
SOT-883VL	**1.05**	**0.65**	**0.32**	**100**	**CEDM8001VL**
SOT-883L	1.05	0.65	0.40	100	CEDM8001
SOT-953	1.05	1.05	0.50	250	CMNDM8001
SOT-523	1.70	1.70	0.78	250	CMUDM8001

CEDM8001VL

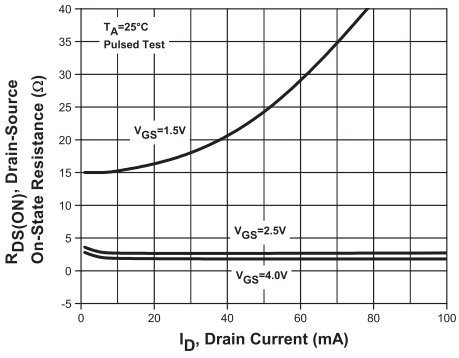
SURFACE MOUNT SILICON P-CHANNEL ENHANCEMENT-MODE MOSFET

TYPICAL ELECTRICAL CHARACTERISTICS

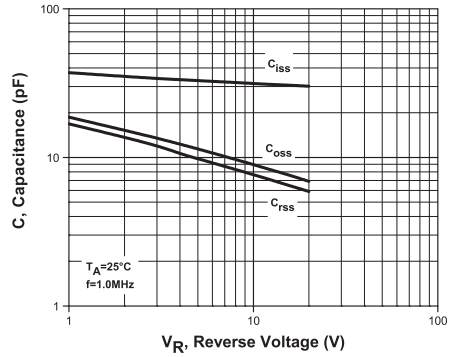
Output Characteristics



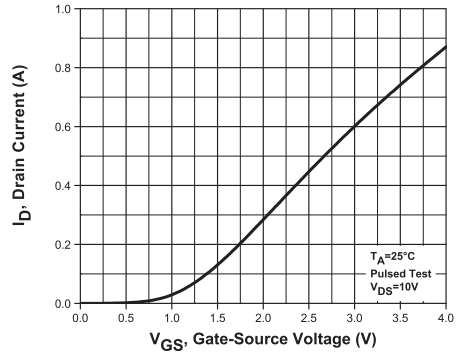
Drain Source On Resistance



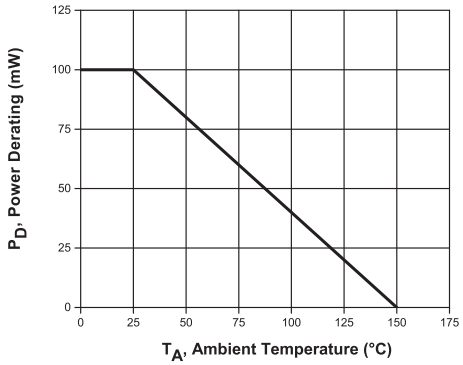
Capacitance



Transfer Characteristics



Power Derating



R2 (11-September 2014)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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Main Fax: (631) 435-1824
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www.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01168
Notification Date:	4/01/21
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. Orders can only be accepted for products with available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01168
Notification Date:	4/01/21
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary:All devices manufactured in the SOT-883VL package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Replacement
CEDM7001VL BK	N/A
CEDM7001VL TR	N/A
CEDM7004VL BK	N/A
CEDM7004VL TR	N/A
CEDM8001VL BK	N/A
CEDM8001VL TR	N/A
CEDM8004VL TR	N/A
CET3904EVL TR	N/A
CET3906EVL TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.