

CTLDM7003-M621

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

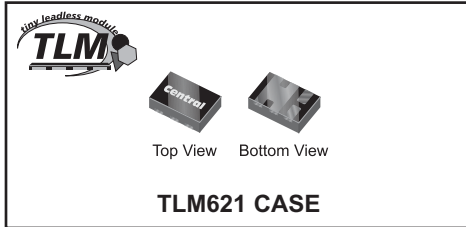


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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLDM7003-M621 is a Silicon N-Channel Enhancement-mode MOSFET in a small, thermally efficient, TLM™ 2x1mm package.

MARKING CODE: CS



• Device is **Halogen Free** by design

APPLICATIONS:

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

MAXIMUM RATINGS: (T_A=25°C)

Drain-Source Voltage
Drain-Gate Voltage
Gate-Source Voltage
Continuous Drain Current
Maximum Pulsed Drain Current
Power Dissipation (Note 1)
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V _{DS}	50
V _{DG}	50
V _{GS}	12
I _D	280
I _{DM}	1.5
P _D	0.9
T _J , T _{stg}	-65 to +150
θ _{JA}	139

UNITS

V
V
V
mA
A
W
°C
°C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{GSSF} , I _{GSSR}	V _{GS} =5.0V			100	nA
I _{GSSF} , I _{GSSR}	V _{GS} =10V			2.0	μA
I _{GSSF} , I _{GSSR}	V _{GS} =12V			2.0	μA
I _{DSS}	V _{DS} =50V, V _{GS} =0			50	nA
BV _{DSS}	V _{GS} =0, I _D =10μA	50			V
V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.49		1.0	V
V _{SD}	V _{GS} =0, I _S =115mA			1.4	V
r _{DS(ON)}	V _{GS} =1.8V, I _D =50mA		1.6	3.0	Ω
r _{DS(ON)}	V _{GS} =2.5V, I _D =50mA		1.3	2.5	Ω
r _{DS(ON)}	V _{GS} =5.0V, I _D =50mA		1.1	2.0	Ω
g _{FS}	V _{DS} =10V, I _D =200mA	200			mS
C _{rss}	V _{DS} =25V, V _{GS} =0, f=1.0MHz			5.0	pF
C _{iss}	V _{DS} =25V, V _{GS} =0, f=1.0MHz			50	pF
C _{oss}	V _{DS} =25V, V _{GS} =0, f=1.0MHz			25	pF

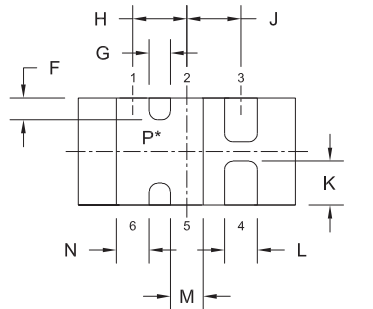
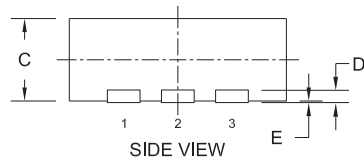
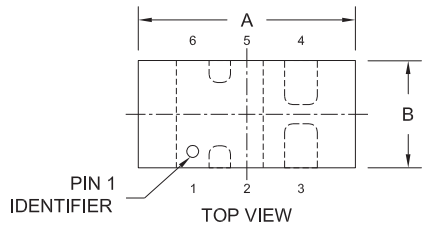
Notes: (1) FR-4 Epoxy PCB with copper mounting pad area of 33mm².

R1 (17-February 2010)

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TLM621 CASE - MECHANICAL OUTLINE

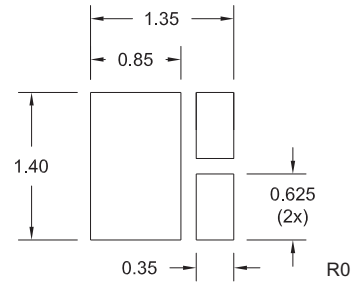


BOTTOM VIEW R2
 *Exposed pad P connects pins 1, 2, 5, and 6.

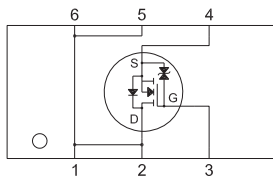
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.073	0.085	1.850	2.150
B	0.033	0.045	0.850	1.150
C	0.028	0.031	0.700	0.800
D	0.006		0.150	
E	0.000	0.002	0.000	0.050
F	0.008		0.200	
G	0.010		0.250	
H	0.020		0.500	
J	0.020		0.500	
K	0.012	0.020	0.300	0.500
L	0.007	0.012	0.180	0.300
M	0.007	0.012	0.180	0.300
N	0.007	0.012	0.180	0.300

TLM621 (REV: R2)

SUGGESTED MOUNTING PADS
 (Dimensions in mm)



PIN CONFIGURATION



LEAD CODE:

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

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