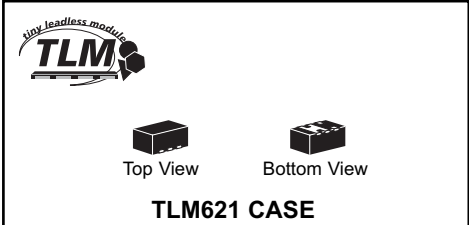


PRELIMINARY

CTL5H05-40M621
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY DIODE



Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTL5H05-40M621 Low V_F Schottky Diode packaged in a TLM™ (Tiny Leadless Module™), is a high quality Schottky Diode designed for applications where small size and operational efficiency are the prime requirements. With a maximum power dissipation of 0.9W, and a very small package footprint (comparable to the SOT-563), this leadless package design is capable of dissipating over 3 times the power of similar devices in comparable sized surface mount packages.

FEATURES:

- Very Small Package Size
- Current (I_F=0.5A)
- Low Forward Voltage Drop (V_F=0.47V MAX @ 0.5A)
- High Thermal Efficiency
- Small TLM 2x1mm case

MARKING CODE: CH

APPLICATIONS:

- DC/DC Converters
- Voltage Clamping
- Protection Circuits
- Battery Powered Portable Equipment

MAXIMUM RATINGS: (T_A=25°C)

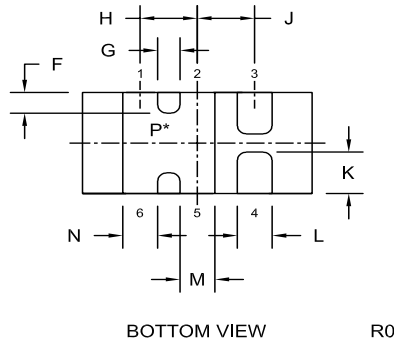
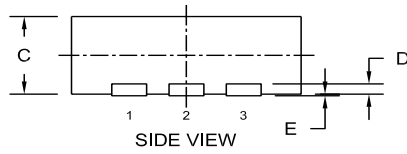
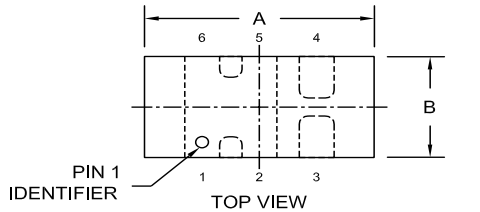
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Continuous Forward Current	I _F	500	mA
Peak Repetitive Forward Current, tp ≤ 1ms	I _{FRM}	3.5	A
Forward Surge Current, tp=8ms	I _{FSM}	10	A
Power Dissipation	P _D	0.9	W*
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	θ _{JA}	139	°C/W*

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _R	V _R = 10V		20	μA
I _R	V _R = 30V		100	μA
BV _R	I _R = 500μA	40		V
V _F	I _F = 100μA		0.13	V
V _F	I _F = 1.0mA		0.21	V
V _F	I _F = 10mA		0.27	V
V _F	I _F = 100mA		0.35	V
V _F	I _F = 500mA		0.47	V
C _T	V _R =1.0V, f=1.0MHz		50	pF

*FR-4 Epoxy PCB with copper mounting pad area of 33mm²

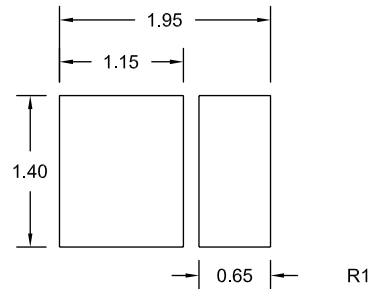
TLM621 CASE - MECHANICAL OUTLINE



SYMBOL	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	0.026	0.030	0.650	0.750
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	0.008	0.012	0.200	0.300
M	0.008	0.012	0.200	0.300
N	0.008	0.012	0.200	0.300

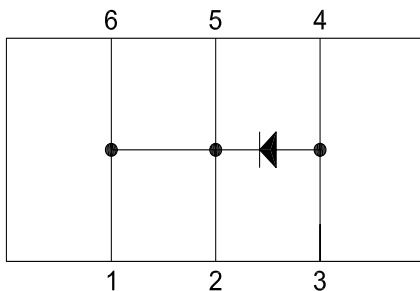
TLM621 (REV: R0)

Suggested mounting pad layout
for maximum power dissipation
(Dimensions in mm)



For standard mounting see
TLM621 Package Details

* Exposed pad P connects pins 1, 2, 5, and 6



LEAD CODE:

- 1) CATHODE
- 2) CATHODE
- 3) ANODE
- 4) ANODE
- 5) CATHODE
- 6) CATHODE

MARKING CODE: CH