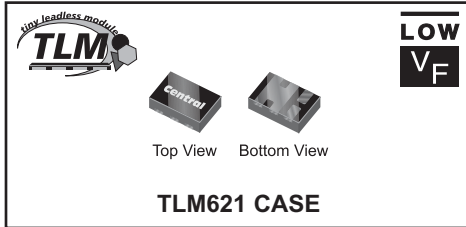


CTLSH05-40M621
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY DIODE



www.centrasemi.com



DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH05-40M621 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.

MARKING CODE: CH

APPLICATIONS:

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

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

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

Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Continuous Forward Current	I_F	500	mA
Peak Repetitive Forward Current, $t_p \leq 1.0ms$	I_{FRM}	3.5	A
Peak Forward Surge Current, $t_p = 8.0ms$	I_{FSM}	10	A
Power Dissipation (See Note 1)	P_D	0.9	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ C$
Thermal Resistance (See Note 1)	θ_{JA}	139	$^\circ C/W$

SYMBOL

SYMBOL		UNITS
V_{RRM}	40	V
I_F	500	mA
I_{FRM}	3.5	A
I_{FSM}	10	A
P_D	0.9	W
T_J, T_{stg}	-65 to +150	$^\circ C$
θ_{JA}	139	$^\circ C/W$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ C$ 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	$I_R=500\mu A$	40		V
V_F	$I_F=100\mu A$		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

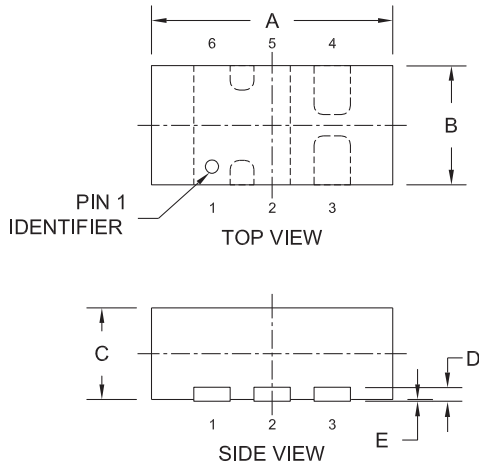
Note 1: FR-4 Epoxy PCB with copper mounting pad area of 33mm²

CTLSH05-40M621

**SURFACE MOUNT
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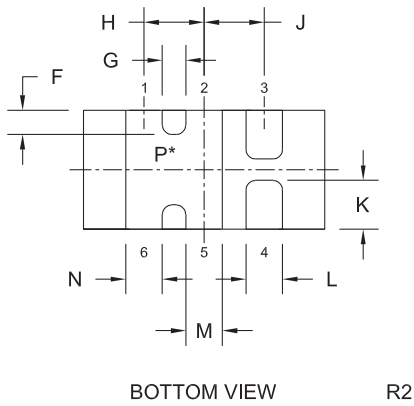


TLM621 CASE - MECHANICAL OUTLINE



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

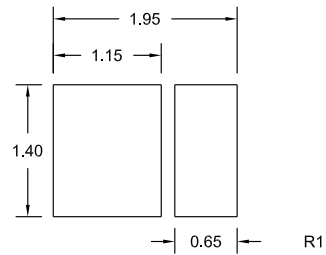
TLM621 (REV: R2)



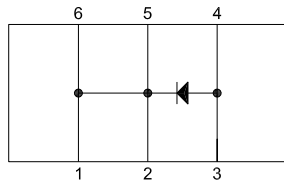
BOTTOM VIEW R2

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

**SUGGESTED MOUNTING PADS
For Maximum Power Dissipation
(Dimensions in mm)**



For standard mounting refer to TLM621 Package Details



LEAD CODE:

- | | |
|------------|------------|
| 1) Cathode | 4) Anode |
| 2) Cathode | 5) Cathode |
| 3) Anode | 6) Cathode |

MARKING CODE: CH

R3 (19-February 2010)