

**CTLSH1-40M621H**

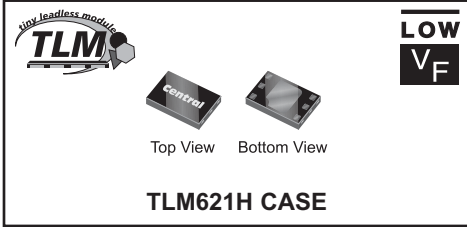
**SURFACE MOUNT  
HIGH CURRENT, LOW  $V_F$   
SILICON SCHOTTKY RECTIFIER**



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**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CTLSH1-40M621H is a very low profile (0.4mm), low  $V_F$  Schottky rectifier in a small, thermally efficient, 1.5mm x 2mm Tiny Leadless Module (TLM) package.



**MARKING CODE: CNE**

• Device is **Halogen Free** by design

**APPLICATIONS:**

- DC/DC Converters
- Reverse Battery Protection
- Battery powered devices including Cell Phones, PDAs, Digital Cameras, MP3 Players, etc.

**FEATURES:**

- High Current ( $I_F=1.0A$ )
- Low Forward Voltage Drop ( $V_F=0.55V$  MAX @ 1.0A)
- High Thermal Efficiency

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

Peak Repetitive Reverse Voltage  
 Continuous Forward Current  
 Peak Repetitive Forward Current,  $t_p \leq 1.0ms$   
 Peak Forward Surge Current,  $t_p=8.0ms$   
 Power Dissipation (Note 1)  
 Operating and Storage Junction Temperature  
 Thermal Resistance (Note 1)

**SYMBOL**

$V_{RRM}$       40  
 $I_F$             1.0  
 $I_{FRM}$         3.5  
 $I_{FSM}$         6.0  
 $P_D$             1.6  
 $T_J, T_{stg}$     -65 to +150  
 $\theta_{JA}$           75

**UNITS**

V  
 A  
 A  
 A  
 W  
 $^\circ C$   
 $^\circ C/W$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ C$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=5.0V$			10	$\mu A$
$I_R$	$V_R=8.0V$			20	$\mu A$
$I_R$	$V_R=15V$			50	$\mu A$
$I_R$	$V_R=40V$			0.2	mA
$I_R$	$V_R=40V, T_A=100^\circ C$			20	mA
$BV_R$	$I_R=100\mu A$	40			V
$V_F$	$I_F=10mA$			0.30	V
$V_F$	$I_F=100mA$			0.40	V
$V_F$	$I_F=500mA$			0.50	V
$V_F$	$I_F=1.0A$			0.60	V
$C_J$	$V_R=4.0V, f=1.0MHz$		50		pF
$t_{rr}$	$I_F=I_R=500mA, I_{rr}=50mA, R_L=50\Omega$		15		ns

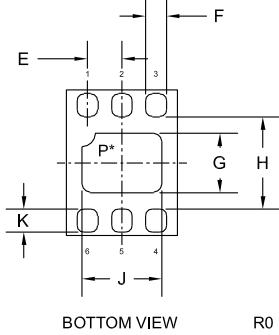
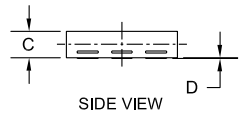
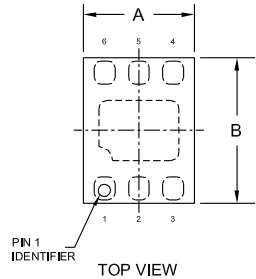
Notes: (1) Mounted on a 4-layer JEDEC test board with one thermal vias connecting the exposed thermal pad to the first buried plane. PCB was constructed as per JEDEC standards JESD51-5 and JESD51-7.

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**TLM621H CASE - MECHANICAL OUTLINE**

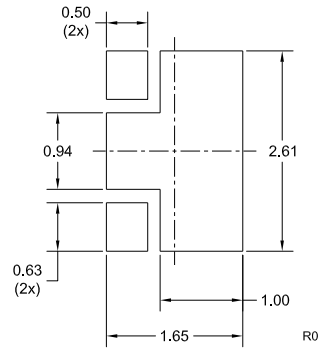


\*Exposed pad P internally connected to pins 2, 3, 4, and 5.

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.053	0.065	1.35	1.65
B	0.073	0.085	1.85	2.15
C	0.012	0.016	0.30	0.40
D	0.000	0.002	0.00	0.05
E	0.020		0.50	
F	0.008	0.012	0.20	0.30
G	0.027	0.035	0.69	0.89
H	0.053	0.057	1.35	1.45
J	0.039	0.047	0.99	1.19
K	0.011	0.015	0.28	0.38

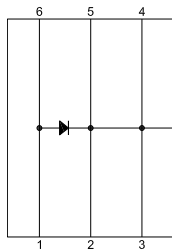
TLM621H (REV:R0)

**OPTIONAL MOUNTING PADS**  
(Dimensions in mm)



For standard mounting refer to TLM621H Package Details

**PIN CONFIGURATION**



**LEAD CODE:**

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

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