

CTLSH1-40M563

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



www.centrasemi.com



• 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.

MAXIMUM RATINGS: (T_A=25°C)

Peak Repetitive Reverse Voltage
 Continuous Forward Current
 Peak Repetitive Forward Current, tp≤1.0ms
 Peak Forward Surge Current, tp=8.3ms
 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} 10
 P_D 500
 T_J, T_{stg} -65 to +150
 Θ_{JA} 250

UNITS

V
 A
 A
 A
 mW
 °C
 °C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _R	V _R =5.0V			10	μA
I _R	V _R =8.0V			20	μA
I _R	V _R =15V			50	μA
I _R	V _R =40V			200	μA
I _R	V _R =40V, T _A =100°C			20	mA
BV _R	I _R =100μA	40			V
V _F	I _F =10mA			0.29	V
V _F	I _F =100mA			0.36	V
V _F	I _F =500mA			0.45	V
V _F	I _F =1.0A			0.55	V
C _J	V _R =4.0V, f=1.0MHz		50		pF
t _{rr}	I _F =I _R =500mA, I _{rr} =50mA, R _L =50Ω		15		ns

Notes: (1) Mounted on 2 inch square FR4 PCB with copper mounting pad area of 2.4mm².

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH1-40M563 is a high quality, low V_F Schottky Rectifier packaged in a space saving 1.6 x 1.6mm TLM™ surface mount package. This device is a TLM™ equivalent of the popular CMLSH1-40, SOT-563 device, featuring enhanced thermal characteristics, a package footprint compatible with standard SOT-563 mounting pad geometries, and a height profile of only 0.4mm.

MARKING CODE: CJB

FEATURES:

- High Current (I_F=1.0A)
- Low Forward Voltage Drop (V_F=0.55V MAX @ 1.0A)
- High Thermal Efficiency
- TLM563 with a package profile of 0.4mm, compatible with SOT-563 mounting geometries

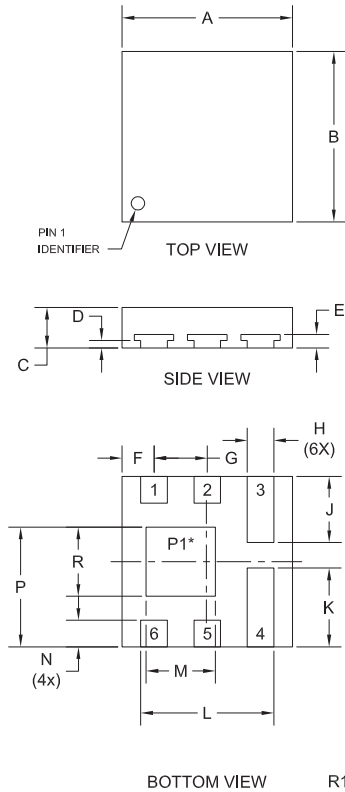
R1 (19-February 2010)

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TLM563 CASE - MECHANICAL OUTLINE

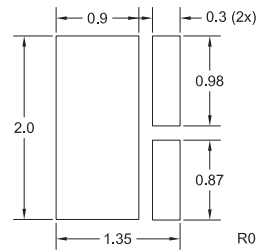


* Exposed pad P1 common to pins 1, 2, 5, and 6.

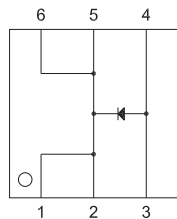
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.062	0.064	1.57	1.63
B	0.062	0.064	1.57	1.63
C	0.014	0.017	0.36	0.43
D	0.002	0.004	0.04	0.10
E	0.004	0.006	0.10	0.16
F	0.011	0.013	0.27	0.33
G	0.019	0.021	0.47	0.53
H	0.009	0.011	0.22	0.28
J	0.023	0.026	0.59	0.65
K	0.028	0.030	0.71	0.77
L	0.048	0.050	1.22	1.28
M	0.024	0.027	0.62	0.68
N	0.009	0.011	0.22	0.28
P	0.043	0.045	1.09	1.16
R	0.024	0.027	0.62	0.68

TLM563 (REV:R1)

SUGGESTED MOUNTING PADS
(Dimensions in mm)



PIN CONFIGURATION



LEAD CODE:

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

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