

CTLSH1-40M563

**SURFACE MOUNT  
HIGH CURRENT, LOW V<sub>F</sub>  
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<sub>A</sub>=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<sub>RRM</sub> 40  
 I<sub>F</sub> 1.0  
 I<sub>FRM</sub> 3.5  
 I<sub>FSM</sub> 10  
 P<sub>D</sub> 500  
 T<sub>J</sub>, T<sub>stg</sub> -65 to +150  
 Θ<sub>JA</sub> 250

**UNITS**

V  
 A  
 A  
 A  
 mW  
 °C  
 °C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =5.0V			10	μA
I <sub>R</sub>	V <sub>R</sub> =8.0V			20	μA
I <sub>R</sub>	V <sub>R</sub> =15V			50	μA
I <sub>R</sub>	V <sub>R</sub> =40V			200	μA
I <sub>R</sub>	V <sub>R</sub> =40V, T <sub>A</sub> =100°C			20	mA
BV <sub>R</sub>	I <sub>R</sub> =100μA	40			V
V <sub>F</sub>	I <sub>F</sub> =10mA			0.29	V
V <sub>F</sub>	I <sub>F</sub> =100mA			0.36	V
V <sub>F</sub>	I <sub>F</sub> =500mA			0.45	V
V <sub>F</sub>	I <sub>F</sub> =1.0A			0.55	V
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz		50		pF
t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =500mA, I <sub>rr</sub> =50mA, R <sub>L</sub> =50Ω		15		ns

Notes: (1) Mounted on 2 inch square FR4 PCB with copper mounting pad area of 2.4mm<sup>2</sup>.

**MARKING CODE: CJB**

**FEATURES:**

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

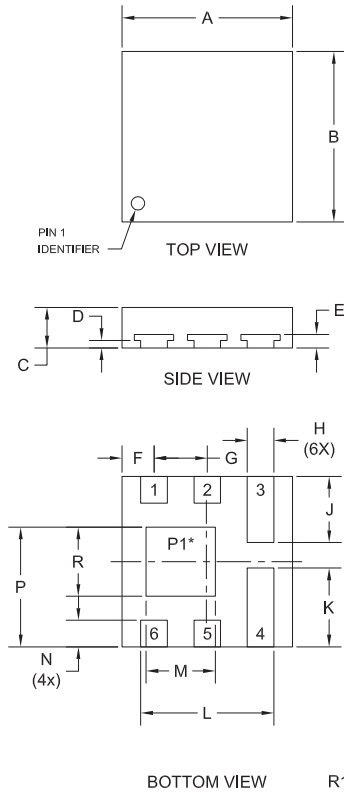
R1 (19-February 2010)

CTLSH1-40M563

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HIGH CURRENT, LOW  $V_F$   
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**TLM563 CASE - MECHANICAL OUTLINE**

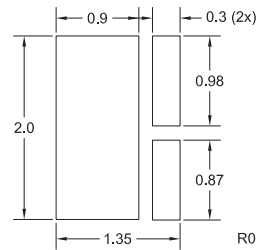


\* Exposed pad P1 common to pins 1, 2, 5, and 6.

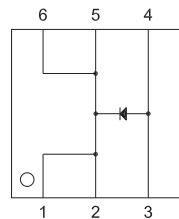
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.062	0.064	1.57	1.63
B	0.062	0.064	1.57	1.63
C	0.014	0.017	0.36	0.43
D	0.002	0.004	0.04	0.10
E	0.004	0.006	0.10	0.16
F	0.011	0.013	0.27	0.33
G	0.019	0.021	0.47	0.53
H	0.009	0.011	0.22	0.28
J	0.023	0.026	0.59	0.65
K	0.028	0.030	0.71	0.77
L	0.048	0.050	1.22	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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