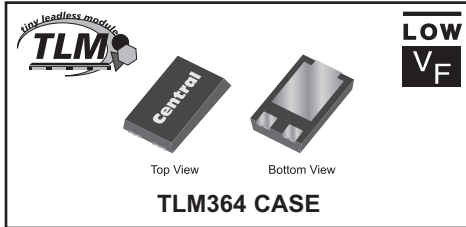


**CTLSH10-100L****SURFACE MOUNT SILICON  
LOW  $V_F$   
SCHOTTKY RECTIFIER**
[www.centrasemi.com](http://www.centrasemi.com)
**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CTLSH10-100L is a high performance 10 Amp silicon Schottky rectifier designed for applications requiring high current, energy efficiency and a low profile package.

**MARKING CODE: CSH10100****APPLICATIONS:**

- DC-DC output rectification
- Reverse polarity protection
- Power management

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

Peak Repetitive Reverse Voltage
DC Blocking Voltage
RMS Reverse Voltage
Average Forward Current ( $T_L=90^\circ\text{C}$ )
Peak Forward Surge Current, $t_p=8.3\text{ms}$
Operating and Storage Junction Temperature
Thermal Resistance (Note 1)
Thermal Resistance (Note 1)

**FEATURES:**

- Low forward voltage,  $V_F=645\text{mV TYP @ 10A}$
- Low reverse leakage current,  $I_R=15\mu\text{A TYP @ 100V}$
- Low profile 1.2mm MAX package height

SYMBOL		UNITS
$V_{RRM}$	100	V
$V_R$	100	V
$V_{R(RMS)}$	70	V
$I_O$	10	A
$I_{FSM}$	300	A
$T_J, T_{stg}$	-55 to +150	$^\circ\text{C}$
$\theta_{JL}$	10	$^\circ\text{C/W}$
$\theta_{JA}$	23	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=100\text{V}$		15	150	$\mu\text{A}$
$I_R$	$V_R=100\text{V}, T_A=125^\circ\text{C}$		15		mA
$BV_R$	$I_R=0.5\text{mA}$	100			V
$V_F$	$I_F=5.0\text{A}$		530		mV
$V_F$	$I_F=5.0\text{A}, T_A=125^\circ\text{C}$		450		mV
$V_F$	$I_F=10\text{A}$		645	680	mV
$V_F$	$I_F=10\text{A}, T_A=125^\circ\text{C}$		540		mV
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$		610		pF

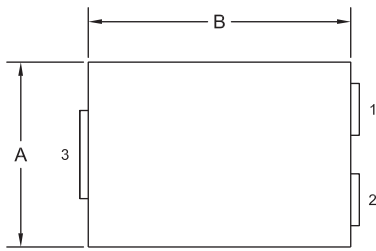
Notes: (1) FR-4 epoxy PCB with 25cm<sup>2</sup> copper pad area.

R1 (4-April 2013)

**CTLSH10-100L**  
**SURFACE MOUNT SILICON**  
**LOW V<sub>F</sub>**  
**SCHOTTKY RECTIFIER**



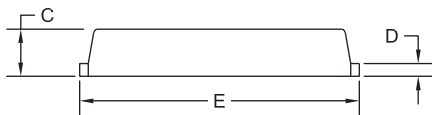
**TLM364 CASE - MECHANICAL OUTLINE**



TOP VIEW

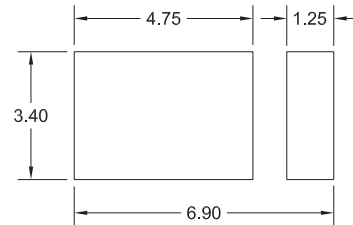
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.167	0.172	4.25	4.35
B	0.238	0.243	6.05	6.15
C	0.039	0.048	1.00	1.20
D	0.009	0.014	0.25	0.35
E	0.250	0.262	6.35	6.65
F	0.128	0.136	3.25	3.45
G	0.076	0.085	1.95	2.15
H	0.044	0.052	1.10	1.30
J	0.083		2.10	
K	0.035	0.044	0.90	1.10
L	0.171	0.183	4.35	4.65

TLM364 (REV:R0)

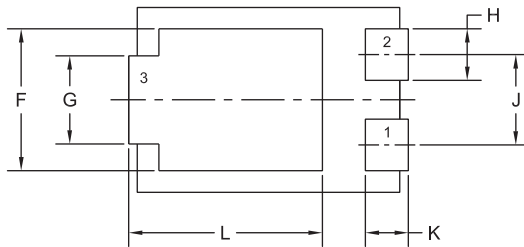


SIDE VIEW

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



R0



BOTTOM VIEW R0

**LEAD CODE:**

- 1) Anode
- 2) Anode
- 3) Cathode

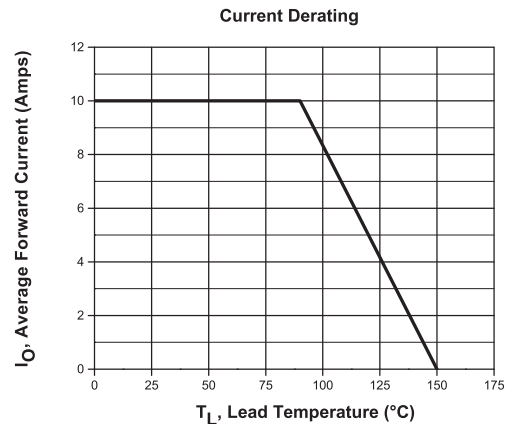
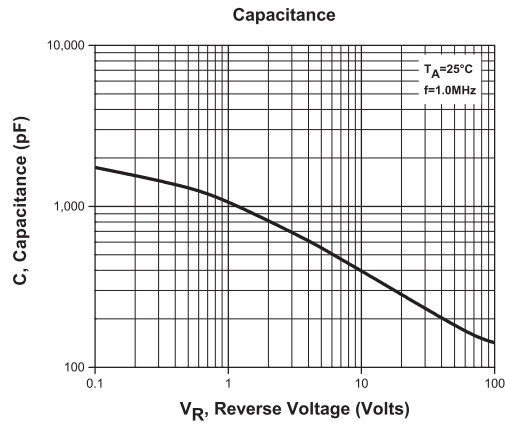
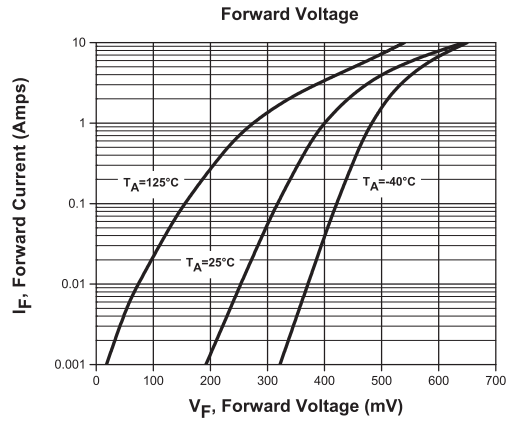
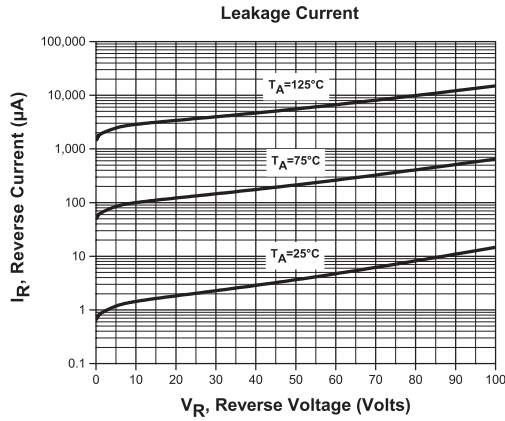
**MARKING CODE: CSH10100**

R1 (4-April 2013)

**CTL5H10-100L**  
**SURFACE MOUNT SILICON**  
**LOW  $V_F$**   
**SCHOTTKY RECTIFIER**



**TYPICAL ELECTRICAL CHARACTERISTICS**



R1 (4-April 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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