

#### CTLSH2-40M832

## SURFACE MOUNT LOW V<sub>F</sub> SILICON SCHOTTKY RECTIFIER



#### **FEATURES:**

- Device is Halogen Free by design
- High Current (I<sub>F</sub>=2.0A)
- Low Forward Voltage Drop (V<sub>F</sub>=0.5V Max @ 2.0A)
- · High Thermal Efficiency
- Small TLM 3x2mm case

# **Central** Semiconductor Corp.

#### **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR

CTLSH2-40M832 Low V<sub>F</sub> Schottky Rectifier is a high quality Schottky Rectifier designed for applications where small size and operational effciency are the prime requirements. With a maximum power dissipation of 1.9W, and a very small package footprint (approximately equal to the SOT-23), this leadless package design is capable of dissipating up to 5 times the power of similar devices in comparable sized surface mount packages.

MARKING CODE: CFB

#### **APPLICATIONS:**

- DC/DC Converters
- Reverse Battery Protection
- Battery Powered Portable Equipment

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Continuous Forward Current	I <sub>F</sub>	2.0	Α
Peak Forward Surge Current, tp=8.3ms	<sup>I</sup> FSM	15	Α
Power Dissipation*	$P_{D}$	1.9	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +125	°C
Thermal Resistance*	$\Theta_{JA}$	52.6	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{R}$	V <sub>R</sub> =40V			0.2	mA
$I_{R}$	V <sub>R</sub> =40V, T <sub>A</sub> =100°C			25	mA
$BV_R$	I <sub>R</sub> =100μA	40			V
٧ <sub>F</sub>	I <sub>F</sub> =1.0A			0.45	V
$V_{F}$	I <sub>F</sub> =2.0A			0.50	V
C <sub>D</sub>	V <sub>R</sub> =10V, f= 1.0MHz		80		pF

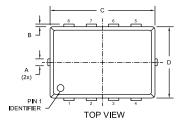
<sup>\*</sup> FR-4 Epoxy PC Board with copper mounting pad area of 54mm<sup>2</sup>

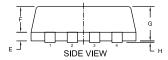


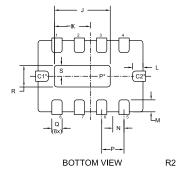
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#### **TLM832 CASE - MECHANICAL OUTLINE**



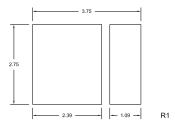




DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.007	0.012	0.170	0.300			
В	-	0.005	-	0.125			
С	0.114	0.122	2.900	3.100			
D	0.075	0.083	1.900	2.100			
E	0.006	0.010	0.150	0.250			
F	0.026	0.030	0.650	0.750			
G	0.031	0.039	0.800	1.000			
Н	0.000	0.002	0.000	0.050			
J	0.059	0.067	1.500	1.700			
K	0.036	0.044	0.910	1.110			
L	0.008	0.018	0.200	0.450			
M	0.008	0.018	0.200	0.450			
N	0.013		0.325				
Р	0.026		0.650				
Q	0.009	0.013	0.240	0.340			
R	0.017	0.025	0.430	0.630			
S	0.006	0.014	0.160	0.360			

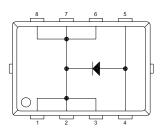
TLM832 (REV: R2)

Suggested mounting pad layout for maximum power dissipation (Dimensions in mm)



For standard mounting refer to TLM832 Package Details

- \* Note:
- Exposed pad P internally connected to pins 1, 2, 3, 6, 7, 8
- Exposed metallized connection C1 internally connected to pins 1, 2, 3, 6, 7, 8
- Exposed metallized connection C2 internally connected to pin 5



### LEAD CODE:

- 1) CATHODE
- 2) CATHODE
- 3) CATHODE
- 4) ANODE
- 5) ANODE
- 6) CATHODE
- 7) CATHODE
- 8) CATHODE

**MARKING CODE: CFB** 

R3 (27-January 2009)