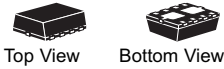




## CTLSH1-40M832D

**SURFACE MOUNT  
DUAL, HIGH CURRENT, LOW V<sub>F</sub>  
SILICON SCHOTTKY DIODES**



**TLM832D CASE**

# Central<sup>TM</sup> Semiconductor Corp.

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH1-40M832D Dual, Isolated, Low V<sub>F</sub> Schottky diodes are designed for applications where small size and operational efficiency are the prime requirements. With a maximum power dissipation of 1.65W, and a very small package footprint (approximately equal to the SOT-23), this leadless package design is capable of dissipating up to 4 times the power of similar devices in comparable sized surface mount packages.

### MARKING CODE: CFA

### FEATURES:

- Device is **Halogen Free** by design
- High Current (I<sub>F</sub>=1.0A)
- Low Forward Voltage Drop (V<sub>F</sub>=0.55V Max @ 1.0A)
- High Thermal Efficiency
- Small TLM 3x2mm case

### APPLICATIONS:

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

### MAXIMUM RATINGS: (T<sub>A</sub>=25°C)

Peak Repetitive Reverse Voltage	
Continuous Forward Current	
Peak Repetitive Forward Current, tp≤1ms	
Forward Surge Current, tp=8ms	
Power Dissipation*	
Operating and Storage Junction Temperature	
Thermal Resistance*	

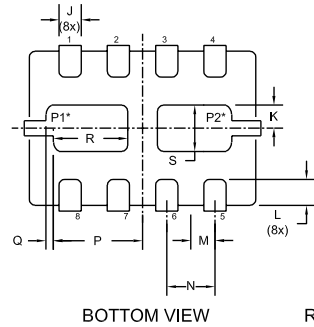
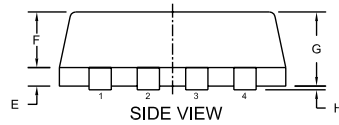
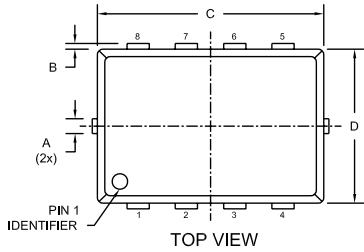
SYMBOL		UNITS
V <sub>RRM</sub>	40	V
I <sub>F</sub>	1.0	A
I <sub>FRM</sub>	3.5	A
I <sub>FSM</sub>	10	A
P <sub>D</sub>	1.65	W
T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Θ <sub>JA</sub>	75.8	°C/W

### 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			0.2	mA
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

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

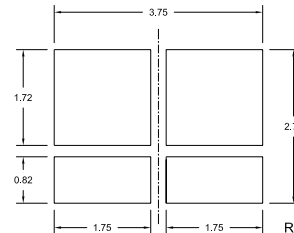
#### TLM832D CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.007	0.012	0.170	0.300
B	-	0.005	-	0.125
C	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
H	0.000	0.002	0.000	0.050
J	0.009	0.013	0.240	0.340
K	0.006	0.014	0.160	0.360
L	0.008	0.018	0.200	0.450
M	0.013		0.325	
N	0.026		0.650	
P	0.040	0.048	1.010	1.210
Q	0.004		0.100	
R	0.032	0.040	0.820	1.020
S	0.017	0.025	0.430	0.630

TLM832D (REV: R2)

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



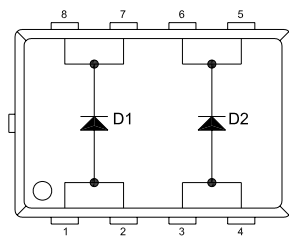
For standard mounting refer  
to TLM832D Package Details

**\* Note:**

- Exposed pad P1 common to pins 7 and 8
- Exposed pad P2 common to pins 5 and 6

**LEAD CODE:**

- 1) ANODE D1
- 2) ANODE D1
- 3) ANODE D2
- 4) ANODE D2
- 5) CATHODE D2
- 6) CATHODE D2
- 7) CATHODE D1
- 8) CATHODE D1



**MARKING CODE: CFA**

R3 (9-May 2008)