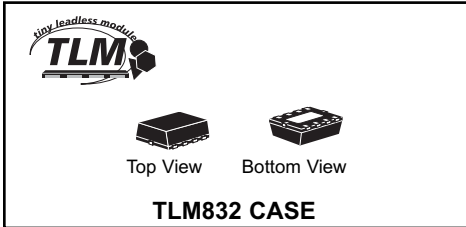


CTLSH2-40M832
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY RECTIFIER



MARKING CODE: CFB

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH2-40M832 Low V_F Schottky Rectifier is a high quality Schottky Rectifier designed for applications where small size and operational efficiency 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.

FEATURES:

- High Current ($I_F=2.0A$)
- Low Forward Voltage Drop ($V_F=0.5V$ MAX @ 2.0A)
- High Thermal Efficiency
- Small TLM 3x2mm case

APPLICATIONS:

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

MAXIMUM RATINGS: ($T_A=25^\circ C$)

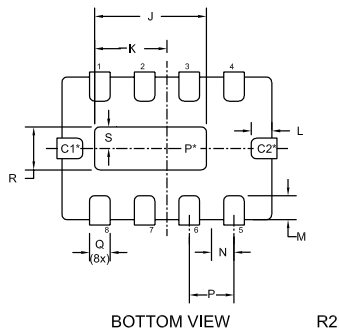
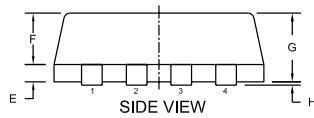
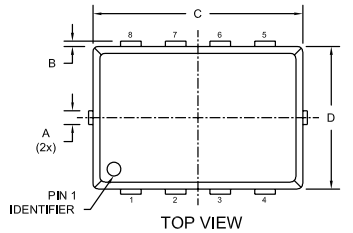
| | SYMBOL | | UNITS |
|---|----------------|-------------|----------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 40 | V |
| Continuous Forward Current | I_F | 2.0 | A |
| Peak Forward Surge Current ($t_p=8ms$) | I_{FSM} | TBD | A |
| Power Dissipation | P_D | 1.9 | W* |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +125 | $^\circ C$ |
| Thermal Resistance | θ_{JA} | 52.6 | $^\circ C/W^*$ |

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

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|---------------|------------------------|------------|------------|------------|--------------|
| I_R | $V_R= 40V$ | | | 0.2 | mA |
| BV_R | $I_R= 100\mu A$ | 40 | | | V |
| V_F | $I_F= 1A$ | | | 0.45 | V |
| V_F | $I_F= 2A$ | | | 0.50 | V |
| C_D | $V_R= 10V, f=1.0$ MHz | | 80 | | pF |

*FR-4 Epoxy PCB with copper mounting pad area of 54mm²

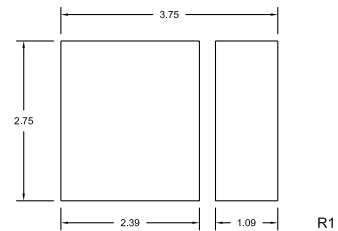
TLM832 CASE - MECHANICAL OUTLINE



| 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 | 0.059 | 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 | |
| P | 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 |

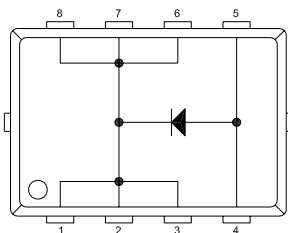
TLM832 (REV: R2)

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