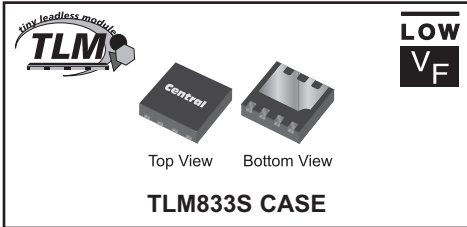


CTLSH5-40M833S
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY RECTIFIER



www.centrasemi.com



DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH5-40M833S is a high performance 5.0 amp silicon Schottky rectifier designed for applications where small size and operational efficiency are prime requirements. With a maximum power dissipation of 4.5W, this leadless package design has a watts per unit area at least twice that of equivalent packaged devices.

MARKING CODE: CHA2S

FEATURES:

- High current ($I_F=5.0A$)
- High thermal efficiency
- Low leakage/Low V_F
- 3 x 3mm TLM™ case

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

| | SYMBOL | | UNITS |
|--|----------------|-------------|--------------|
| Continuous Reverse Voltage | V_R | 40 | V |
| Average Forward Current | I_O | 5.0 | A |
| Peak Forward Surge Current ($t_p=8.3ms$) | I_{FSM} | 50 | A |
| Power Dissipation (Note 1) | P_D | 4.5 | W |
| Power Dissipation (Note 2) | P_D | 4.0 | W |
| Power Dissipation (Note 3) | P_D | 2.5 | W |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ C$ |
| Thermal Resistance (Note 1) | θ_{JA} | 27.78 | $^\circ C/W$ |
| Thermal Resistance (Note 2) | θ_{JA} | 31.25 | $^\circ C/W$ |
| Thermal Resistance (Note 3) | θ_{JA} | 50 | $^\circ C/W$ |

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

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|---|-----|------|------|---------|
| I_R | $V_R=20V$ | | 15 | 150 | μA |
| I_R | $V_R=40V$ | | 25 | 200 | μA |
| BV_R | $I_R=0.4mA$ | 40 | | | V |
| V_F | $I_F=1.0A$ | | 0.35 | | V |
| V_F | $I_F=2.0A$ | | 0.41 | | V |
| V_F | $I_F=3.0A$ | | 0.45 | | V |
| V_F | $I_F=4.0A$ | | 0.48 | | V |
| V_F | $I_F=5.0A$ | | 0.49 | 0.52 | V |
| C_J | $V_R=4.0V, f=1.0MHz$ | | 220 | | pF |
| t_{rr} | $I_F=I_R=10mA, I_{rr}=1.0mA, R_L=100\Omega$ | | 80 | | ns |

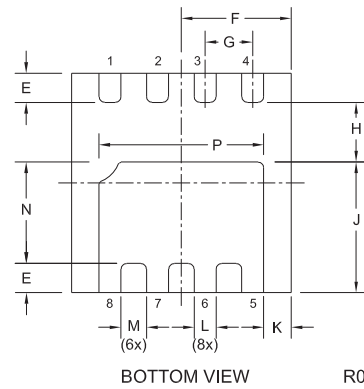
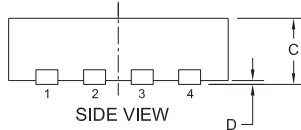
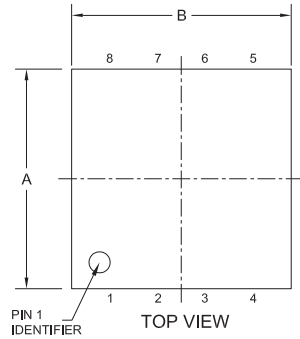
- Notes: (1) Ceramic or aluminum core PC Board with copper mounting pad area of 75 mm²
 (2) FR-4 Epoxy PC Board with copper mounting pad area of 75 mm²
 (3) FR-4 Epoxy PC Board with copper mounting pad area of 25 mm²

R0 (17-January 2012)

CTLSH5-40M833S
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY RECTIFIER



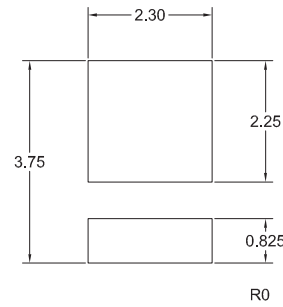
TLM833S CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.112 | 0.124 | 2.85 | 3.15 |
| B | 0.112 | 0.124 | 2.85 | 3.15 |
| C | 0.031 | 0.039 | 0.80 | 1.00 |
| D | 0.000 | 0.002 | 0.00 | 0.05 |
| E | 0.012 | 0.020 | 0.30 | 0.50 |
| F | 0.056 | 0.062 | 1.43 | 1.57 |
| G | 0.026 | | 0.65 | |
| H | 0.030 | 0.033 | 0.75 | 0.85 |
| J | 0.065 | 0.073 | 1.65 | 1.85 |
| K | 0.012 | 0.016 | 0.30 | 0.40 |
| L | 0.010 | 0.014 | 0.25 | 0.35 |
| M | 0.012 | 0.016 | 0.30 | 0.40 |
| N | 0.047 | 0.057 | 1.20 | 1.45 |
| P | 0.081 | 0.091 | 2.07 | 2.32 |

TLM833S (REV:R0)

SUGGESTED MOUNTING PADS
(Dimensions in mm)



For standard mounting see
TLM833S package details

LEAD CODE:

- 1) Anode
- 2) Anode
- 3) Anode
- 4) Anode
- 5) Cathode
- 6) Cathode
- 7) Cathode
- 8) Cathode

MARKING CODE: CHA2S

R0 (17-January 2012)