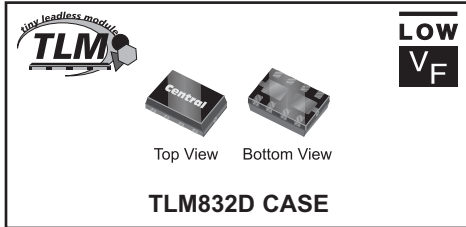


CTLSH1-40M832D

**SURFACE MOUNT
DUAL, HIGH CURRENT
LOW V_F
SILICON SCHOTTKY RECTIFIERS**



• Device is **Halogen Free** by design

APPLICATIONS:

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

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

Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$
Peak Forward Surge Current, $t_p = 8.0\text{ms}$
Power Dissipation (Note 1)
Operating and Storage Junction Temperature
Thermal Resistance (Note 1)



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH1-40M832D Dual, Isolated, Low V_F Silicon Schottky rectifiers 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.

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FEATURES:

- High Current ($I_F=1.0\text{A}$)
- Low Forward Voltage Drop ($V_F=0.55\text{V MAX @ } 1.0\text{A}$)
- High Thermal Efficiency
- Small TLM 3x2mm case

SYMBOL		UNITS
V_{RRM}	40	V
I_F	1.0	A
I_{FRM}	3.5	A
I_{FSM}	10	A
P_D	1.65	W
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	75.8	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=5.0\text{V}$			10	μA
I_R	$V_R=8.0\text{V}$			20	μA
I_R	$V_R=15\text{V}$			50	μA
I_R	$V_R=40\text{V}$			0.2	mA
I_R	$V_R=40\text{V}, T_A=100^\circ\text{C}$			20	mA
BV_R	$I_R=100\mu\text{A}$	40			V
V_F	$I_F=10\text{mA}$			0.29	V
V_F	$I_F=100\text{mA}$			0.36	V
V_F	$I_F=500\text{mA}$			0.45	V
V_F	$I_F=1.0\text{A}$			0.55	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		50		pF

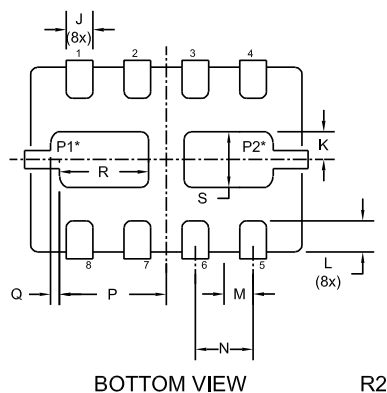
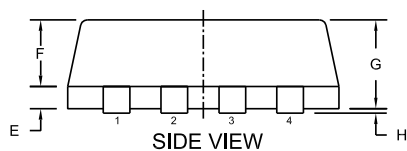
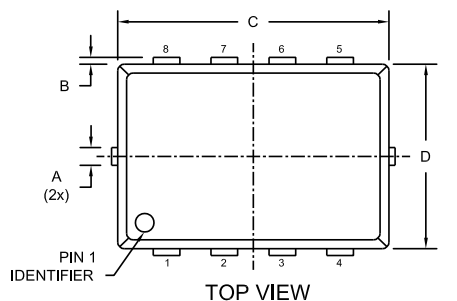
Notes: (1) FR-4 Epoxy PC Board with copper mounting pad area of 54mm^2

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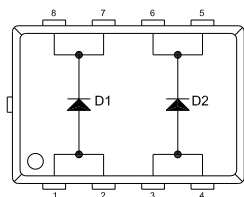
CTLSH1-40M832D
SURFACE MOUNT
DUAL, HIGH CURRENT
LOW V_F
SILICON SCHOTTKY RECTIFIERS



TLM832D CASE - MECHANICAL OUTLINE



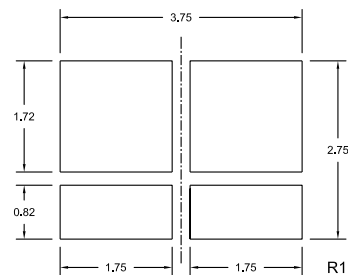
* Note:
- Exposed pad P1 common to pins 7 and 8
- Exposed pad P2 common to pins 5 and 6



SYMBOL	DIMENSIONS			
	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 PADS
For Maximum Power Dissipation
(Dimensions in mm)



For standard mounting refer to TLM832D Package Details

LEAD CODE:

- | | |
|-------------|---------------|
| 1) Anode D1 | 5) Cathode D2 |
| 2) Anode D1 | 6) Cathode D2 |
| 3) Anode D2 | 7) Cathode D1 |
| 4) Anode D2 | 8) Cathode D1 |

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