

CTLSH1-50M832DS
SURFACE MOUNT
DUAL, HIGH CURRENT
LOW V_F
SILICON SCHOTTKY RECTIFIERS



www.centralemi.com



DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH1-50M832DS 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.

MARKING CODE: CFX

APPLICATIONS:

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

FEATURES:

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

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

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

SYMBOL		UNITS
V_{RRM}	50	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	$^\circ C$
θ_{JA}	75.8	$^\circ C/W$

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

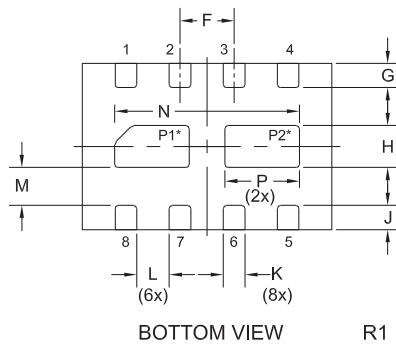
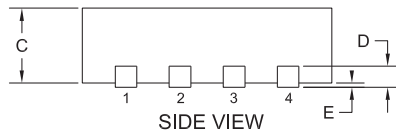
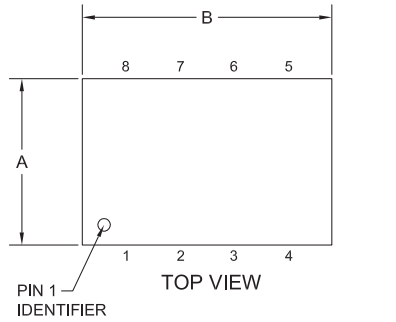
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=5.0V$			10	μA
I_R	$V_R=8.0V$			20	μA
I_R	$V_R=15V$			50	μA
I_R	$V_R=50V$			0.5	mA
I_R	$V_R=50V, T_A=100^\circ C$			50	mA
BV_R	$I_R=100\mu A$	50			V
V_F	$I_F=10mA$			0.29	V
V_F	$I_F=100mA$			0.36	V
V_F	$I_F=500mA$			0.45	V
V_F	$I_F=1.0A$			0.55	V
C_J	$V_R=4.0V, f=1.0MHz$		50		pF

Notes: (1) FR-4 Epoxy PC Board with copper mounting pad area of 54mm²

CTLSH1-50M832DS
SURFACE MOUNT
DUAL, HIGH CURRENT
LOW V_F
SILICON SCHOTTKY RECTIFIERS



TLM832DS CASE - MECHANICAL OUTLINE

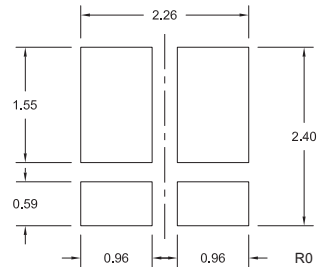


* Exposed pad P1 common to pins 7 and 8
 Exposed pad P2 common to pins 5 and 6

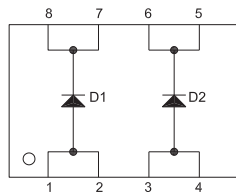
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.077	0.081	1.95	2.05
B	0.116	0.120	2.95	3.05
C	0.031	0.039	0.80	1.00
D	0.006	0.010	0.16	0.25
E	0.000	0.002	0.00	0.05
F	0.026		0.65	
G	0.008	0.016	0.19	0.40
H	0.014	0.024	0.35	0.61
J	0.008	0.016	0.19	0.40
K	0.008	0.012	0.21	0.31
L	0.013	0.017	0.34	0.44
M	0.006	--	0.15	--
N	0.087		2.22	
P	0.029	0.039	0.74	1.00

TLM832DS (REV:R1)

SUGGESTED MOUNTING PADS
For Maximum Power Dissipation
 (Dimensions in mm)



PIN CONFIGURATION



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 |

MARKING CODE: CFX

R1 (23-September 2011)