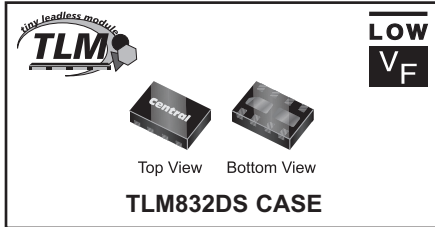


**CTLSH1-50M832DS**

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


[www.centrasemi.com](http://www.centrasemi.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****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

**APPLICATIONS:**

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

**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	$^\circ C$
$\theta_{JA}$	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	$\mu A$
$I_R$	$V_R=8.0V$			20	$\mu A$
$I_R$	$V_R=15V$			50	$\mu A$
$I_R$	$V_R=50V$			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

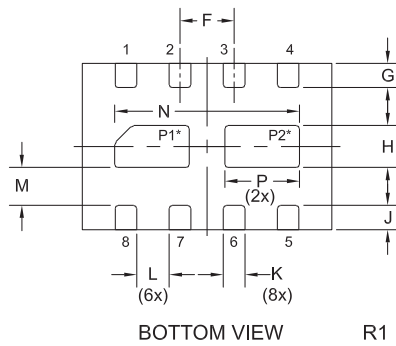
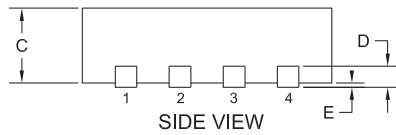
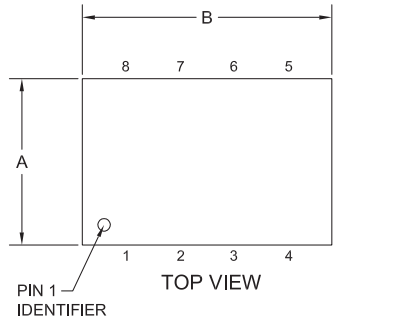
Notes: (1) FR-4 Epoxy PC Board with copper mounting pad area of 54mm<sup>2</sup>

R1 (23-September 2011)

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



**TLM832DS CASE - MECHANICAL OUTLINE**

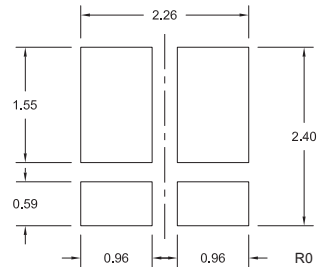


\* Exposed pad P1 common to pins 7 and 8  
 Exposed pad P2 common to pins 5 and 6

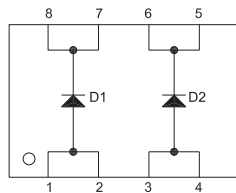
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.077	0.081	1.95	2.05
B	0.116	0.120	2.95	3.05
C	0.031	0.039	0.80	1.00
D	0.006	0.010	0.16	0.25
E	0.000	0.002	0.00	0.05
F	0.026		0.65	
G	0.008	0.016	0.19	0.40
H	0.014	0.024	0.35	0.61
J	0.008	0.016	0.19	0.40
K	0.008	0.012	0.21	0.31
L	0.013	0.017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