

CTL5H5-40M833

SURFACE MOUNT
LOW VF
SILICON SCHOTTKY RECTIFIER



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTL5H5-40M833 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.



LOW
VF

Top View Bottom View

TLM833 CASE

FEATURES:

- High Current ($I_F=5.0A$) • High Thermal Efficiency
- Low Leakage/Low V_F • 3 x 3mm TLM™ case

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

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}	50.00	$^\circ C/W$

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

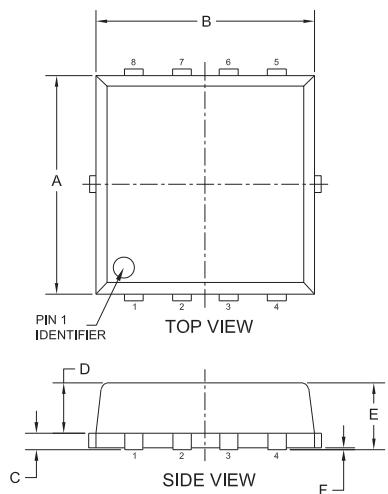
(3) FR-4 Epoxy PC Board with copper mounting pad area of 25 mm²

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TLM833 CASE - MECHANICAL OUTLINE

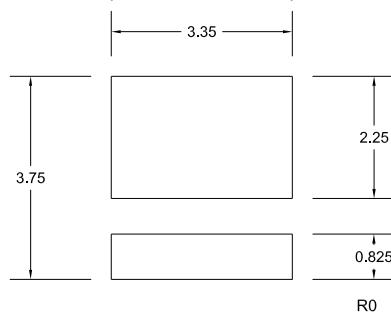


SYMBOL	DIMENSIONS		MILLIMETERS		
	INCHES	MIN	MAX	MIN	MAX
A	0.114	0.122		2.90	3.10
B	0.114	0.122		2.90	3.10
C	0.006	0.010		0.15	0.25
D	0.026	0.030		0.65	0.75
E	0.031	0.039		0.80	1.00
F	0.000	0.002		0.00	0.05
G	0.008	0.018		0.20	0.45
H	0.026			0.65	
J	---	0.005		---	0.125
K	0.007	0.012		0.17	0.30
L	---	0.005		---	0.125
M	0.011	0.015		0.29	0.39
N	0.049	0.057		1.25	1.45
P	0.006	0.014		0.15	0.35
Q	0.040	0.048		1.01	1.21
R	0.085	0.093		2.16	2.36
S	0.012	0.016		0.30	0.40

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SUGGESTED MOUNTING PADS

(Dimensions in mm)



LEAD CODE:

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

For standard mounting see
TLM833 package details

MARKING CODE: CHA2

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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
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- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
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