

CTLSH5-40M833
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY RECTIFIER



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH5-40M833 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.

MARKING CODE: CHA2

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}	50.00	$^\circ C/W$

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

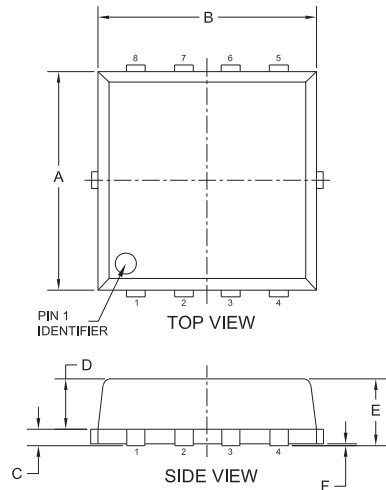
R3 (17-February 2010)

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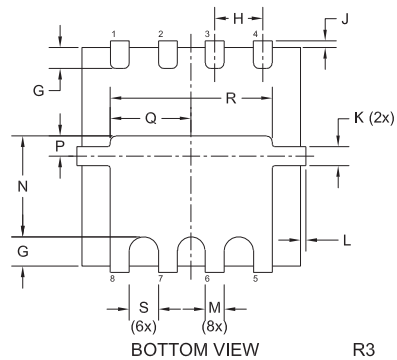


TLM833 CASE - MECHANICAL OUTLINE

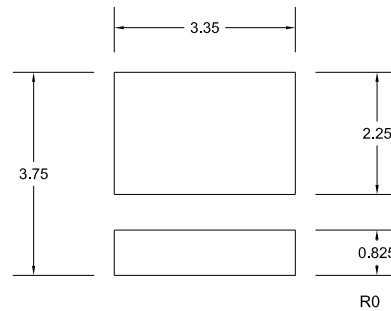


SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.114	0.122	2.90	3.10
B	0.114	0.122	2.90	3.10
C	0.006	0.010	0.15	0.25
D	0.026	0.030	0.65	0.75
E	0.031	0.039	0.80	1.00
F	0.000	0.002	0.00	0.05
G	0.008	0.018	0.20	0.45
H	0.026		0.65	
J	---	0.005	---	0.125
K	0.007	0.012	0.17	0.30
L	---	0.005	---	0.125
M	0.011	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

TLM833 (REV:R3)



SUGGESTED MOUNTING PADS
(Dimensions in mm)



For standard mounting see
TLM833 package details

LEAD CODE:

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

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PRODUCT SUPPORT

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

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- Custom product packing

DESIGNER SUPPORT/SERVICES

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- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

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