

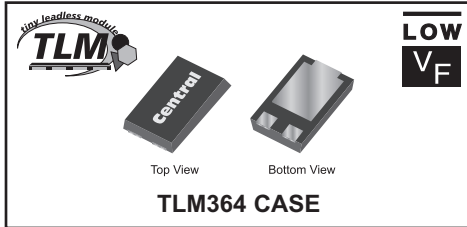
CTLSH10-45L
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY RECTIFIER



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH10-45L is a high performance 10 amp silicon Schottky rectifier designed for applications as a by-pass diode in low profile solar panels.



MARKING CODE: CSH1045L

APPLICATIONS:

- Solar by-pass diode
- OR-ing diode
- DC-DC output rectification
- Reverse polarity protection
- Power management

FEATURES:

- Low forward voltage, $V_F=0.47V$ MAX @ 10A
- Low reverse leakage current, $I_R=0.25mA$ MAX @ 45V
- Low profile 1.2mm MAX package height

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

Peak Repetitive Reverse Voltage
DC Blocking Voltage
RMS Reverse Voltage
Average Forward Current ($T_L=110^\circ C$)
Peak Forward Surge Current, $t_p=8.3ms$
Operating and Storage Junction Temperature
Thermal Resistance (Note 1)
Thermal Resistance (Note 1)

SYMBOL		UNITS
V_{RRM}	45	V
V_R	45	V
$V_{R(RMS)}$	32	V
I_O	10	A
I_{FSM}	275	A
T_J, T_{stg}	-55 to +150	$^\circ C$
θ_{JA}	60	$^\circ C/W$
θ_{JL}	8.0	$^\circ C/W$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=45V$		0.1	0.25	mA
I_R	$V_R=45V, T_A=125^\circ C$		15		mA
BV_R	$I_R=0.5mA$	45			V
V_F	$I_F=5.0A$		0.38		V
V_F	$I_F=5.0A, T_A=125^\circ C$		0.32		V
V_F	$I_F=10A$		0.44	0.47	V
V_F	$I_F=10A, T_A=125^\circ C$		0.41		V
C_J	$V_R=10V, f=1.0MHz$		400		pF

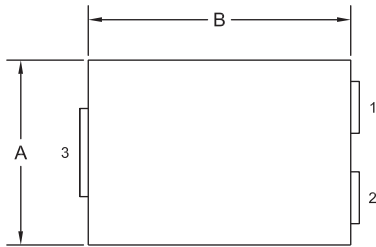
Notes: (1) FR-4 epoxy PCB with minimum copper pad area.

R1 (16-July 2012)

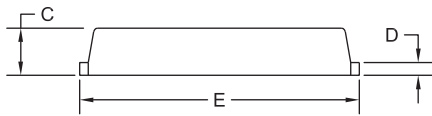
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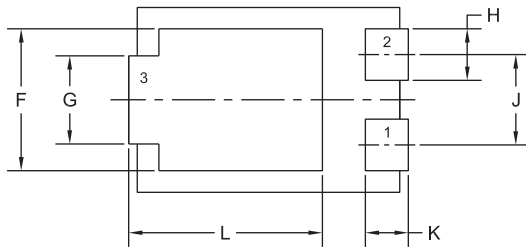
TLM364 CASE - MECHANICAL OUTLINE



TOP VIEW



SIDE VIEW

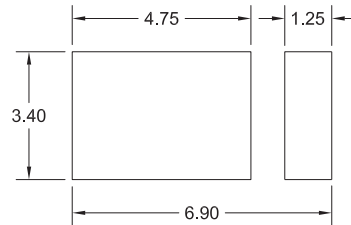


BOTTOM VIEW R0

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.167	0.172	4.25	4.35
B	0.238	0.243	6.05	6.15
C	0.039	0.048	1.00	1.20
D	0.009	0.014	0.25	0.35
E	0.250	0.262	6.35	6.65
F	0.128	0.136	3.25	3.45
G	0.076	0.085	1.95	2.15
H	0.044	0.052	1.10	1.30
J	0.083		2.10	
K	0.035	0.044	0.90	1.10
L	0.171	0.183	4.35	4.65

TLM364 (REV:R0)

SUGGESTED MOUNTING PADS
(Dimensions in mm)



R0

LEAD CODE:

- 1) Anode
- 2) Anode
- 3) Cathode

MARKING CODE: CSH1045L

R1 (16-July 2012)

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)
- Online technical data and parametric search
- 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
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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