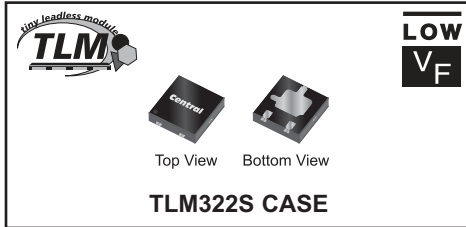


CTLSH1-40M322S**SURFACE MOUNT SILICON
HIGH CURRENT, LOW V_F
SCHOTTKY RECTIFIER**www.centrasemi.com**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CTLSH1-40M322S is a low V_F Schottky rectifier designed for applications where small size and operational efficiency are prime requirements. With a maximum power dissipation of 1.45W, and a very small package footprint (approximately equal to the SOT-363), this Tiny Leadless Module (TLM) is capable of dissipating up to 4 times the power of similar devices in a comparable surface mount package.

MARKING CODE: CBAS**APPLICATIONS:**

- DC-DC converters
- Reverse battery protection
- Battery powered devices including cell phones, PDAs, digital cameras, MP3 players, etc.

FEATURES:

- High forward current ($I_F=1.0A$)
- Low forward voltage drop ($V_F=0.55V$ MAX @ 1.0A)
- High thermal efficiency

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}	40	V
I_F	1.0	A
I_{FRM}	3.5	A
I_{FSM}	10	A
P_D	1.45	W
T_J, T_{stg}	-65 to +150	$^\circ C$
θ_{JA}	86.2	$^\circ C/W$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ C$ 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	$V_R=40V$			0.2	mA
I_R	$V_R=40V, T_A=100^\circ C$			20	mA
BV_R	$I_R=100\mu A$	40			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
t_{rr}	$I_F=I_R=500mA, I_{rr}=50mA, R_L=50\Omega$		15		ns

Note 1: FR-4 Epoxy PC Board with copper mounting pad area of 21mm²

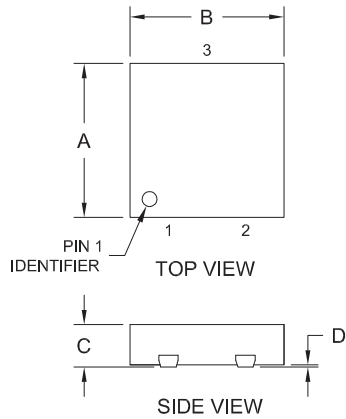
R1 (22-December 2015)

CTLSH1-40M322S

**SURFACE MOUNT SILICON
HIGH CURRENT, LOW V_F
SCHOTTKY RECTIFIER**

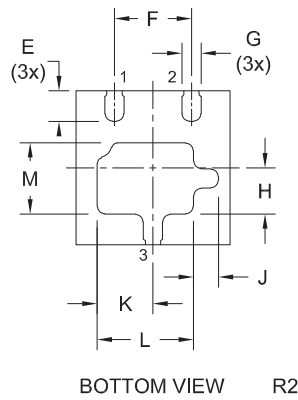


TLM322S CASE - MECHANICAL OUTLINE

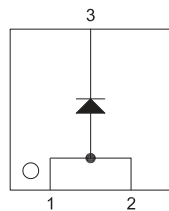


SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.076	0.081	1.95	2.05
B	0.076	0.081	1.95	2.05
C	0.019	0.024	0.50	0.60
D	0.000	0.002	0.00	0.05
E	0.011	0.020	0.30	0.50
F	0.039		1.00	
G	0.007	0.012	0.18	0.30
H	0.017	0.028	0.45	0.70
J	0.008	0.017	0.22	0.43
K	0.024	0.033	0.62	0.83
L	0.043	0.054	1.10	1.35
M	0.030	0.041	0.77	1.03

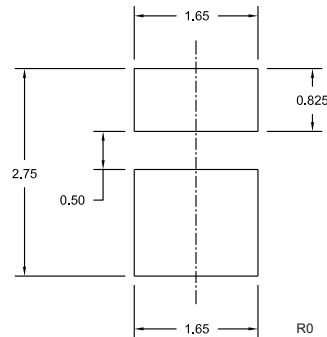
TLM322S (REV:R2)



PIN CONFIGURATION



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



For standard mounting refer to TLM322S Package Details

LEAD CODE:

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

MARKING CODE: CBAS

R1 (22-December 2015)

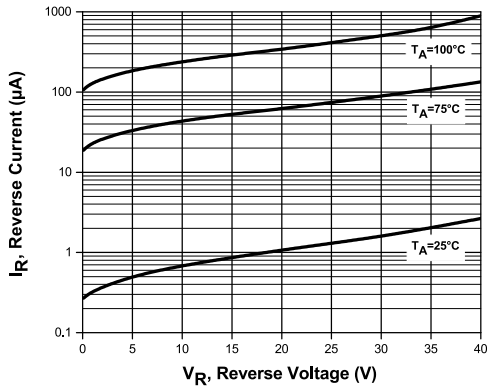
CTLSH1-40M322S

SURFACE MOUNT SILICON
HIGH CURRENT, LOW V_F
SCHOTTKY RECTIFIER

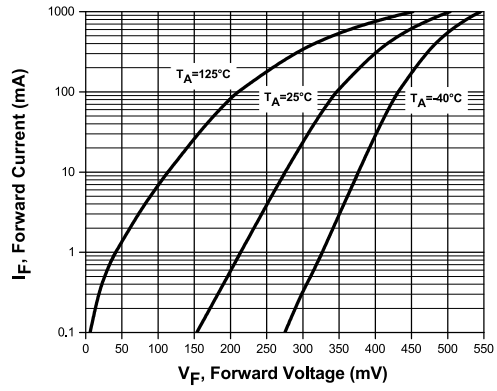


TYPICAL ELECTRICAL CHARACTERISTICS

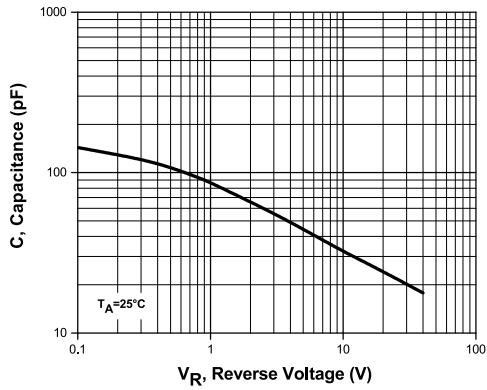
Leakage Current



Forward Voltage



Capacitance



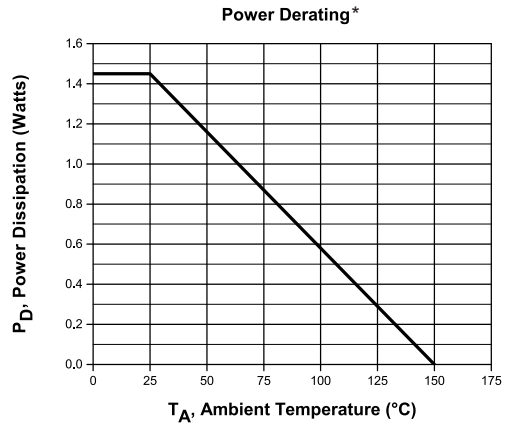
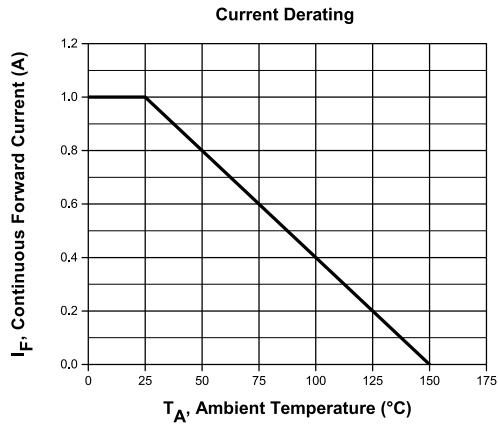
R1 (22-December 2015)

CTLSH1-40M322S

SURFACE MOUNT SILICON
HIGH CURRENT, LOW V_F
SCHOTTKY RECTIFIER



TYPICAL ELECTRICAL CHARACTERISTICS



*FR-4 Epoxy PC Board with copper mounting pad area of 21mm²

R1 (22-December 2015)

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).

CONTACT US

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www.centrasemi.com

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www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms



<http://www.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01106
Notification Date:	9/25/18
Last Buy Date:	3/25/19
Last Shipment Date	9/25/19

Summary: All devices in the TLM322S package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CTLSH1-40M322S BK	N/A, Stock Only
CTLSH1-40M322S TR	N/A, Stock Only
CTLT8099-M322S TR	N/A, Stock Only

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.