

CMP SH1-4LE

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



www.centrasemi.com



SOT-23F CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMP SH1-4LE is an Enhanced high current, low leakage, low V_F , Schottky rectifier in a surface mount SOT-23F package. It is suitable for all applications requiring premium performance in a small sized, high current Schottky rectifier that offers both very low V_F and leakage current specifications.

MARKING CODE: CSE**APPLICATIONS:**

- Load/Power switches
- Power supply converter circuits
- Battery powered equipment including cell phones, digital cameras, pagers, PDAs, etc.

FEATURES:

- Current ($I_F=1.0A$)
- Low forward voltage drop ($V_F=0.39V$ MAX @ 1.0A)
- Low reverse current (150 μA TYP @ $V_R=20V$)
- Small, surface mount, power SOT-23F package

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

Continuous Reverse Voltage
Average Forward Current
Peak Forward Surge Current, $t_p=8.3ms$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

SYMBOL		UNITS
V_R	40	V
I_O	1.0	A
I_{FSM}	20	A
P_D	350	mW
T_J, T_{stg}	-65 to +125	$^\circ C$
θ_{JA}	286	$^\circ C/W$

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

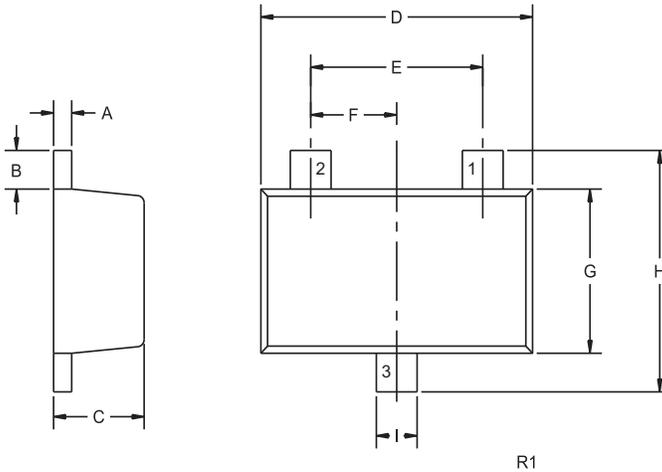
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=5.0V$		60	200	μA
I_R	$V_R=10V$		85	300	μA
I_R	$V_R=20V$		150	500	μA
I_R	$V_R=30V$		250	800	μA
I_R	$V_R=40V$		350	900	μA
BV_R	$I_R=1.0mA$	40			V
V_F	$I_F=100mA$			300	mV
V_F	$I_F=500mA$			350	mV
V_F	$I_F=1.0A$			400	mV
V_F	$I_F=1.5A$			450	mV
C_J	$V_R=10V, f=1.0MHz$		50		pF

CMPSH1-4LE

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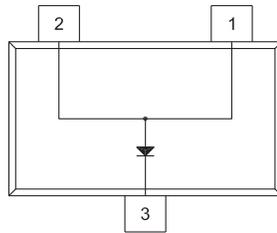
SOT-23F CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.008	0.10	0.20
B	0.012	0.020	0.30	0.50
C	0.031	0.039	0.80	1.00
D	0.110	0.118	2.80	3.00
E	0.075		1.90	
F	0.037		0.95	
G	0.059	0.067	1.50	1.70
H	0.091	0.098	2.30	2.50
I	0.014	0.018	0.35	0.45

SOT-23F (REV: R1)

PIN CONFIGURATION



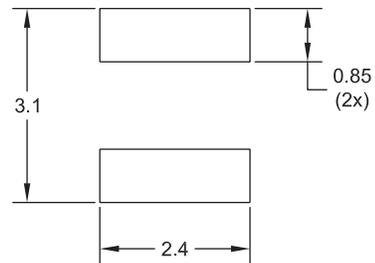
LEAD CODE:

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

MARKING CODE: CSE

OPTIONAL MOUNTING PADS

(Dimensions in mm)



R0

(For standard mounting pads see SOT-23F Package Details)

R4 (21-September 2015)

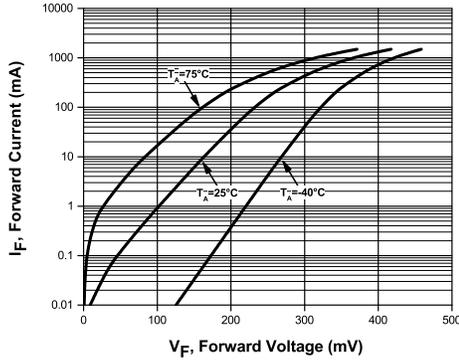
CMPSH1-4LE

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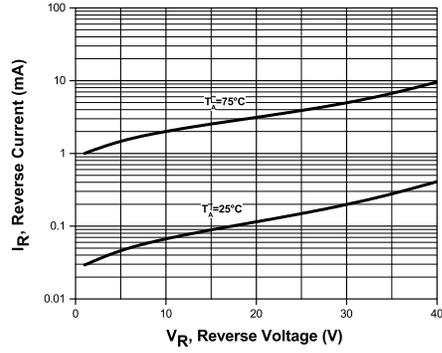


TYPICAL ELECTRICAL CHARACTERISTICS

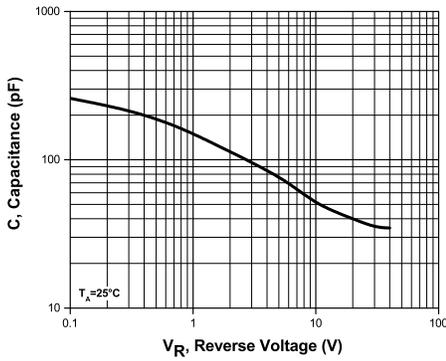
Forward Voltage



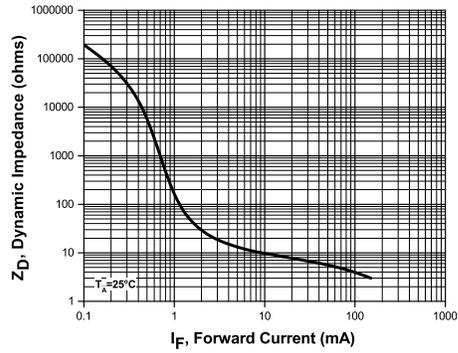
Leakage Current



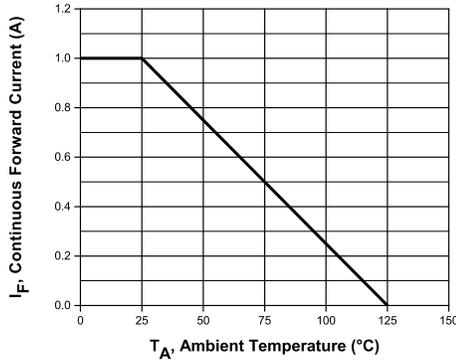
Capacitance



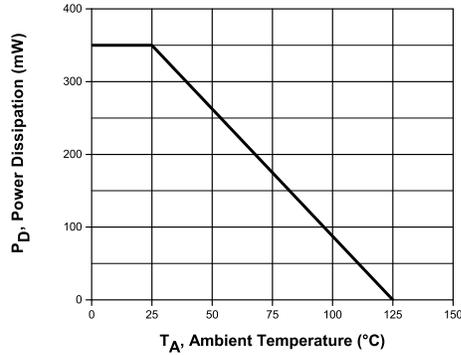
Forward Dynamic Impedance



Current Derating



Power Derating



R4 (21-September 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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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

Product End of Life Notification

PDN ID:	PDN01160
Notification Date:	8/11/20
Last Buy Date:	2/11/21
Last Shipment Date	8/11/21

Summary: All devices manufactured in the SOT-23F 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.

*** All Plating types (PBFREE, TIN/LEAD) for each item listed is included in this notice.**

<u>Central Part Number</u>	<u>Replacement</u>
CEN1232 BK	N/A, Stock Only
CEN1232 TR	N/A, Stock Only
CEN1233 BK	N/A, Stock Only
CEN1233 TR	N/A, Stock Only
CMPSH05-4C BK	N/A, Stock Only
CMPSH05-4C TR	N/A, Stock Only
CMPSH1-4 BK	N/A, Stock Only
CMPSH1-4 TR	N/A, Stock Only
CMPSH1-4L BK	N/A, Stock Only
CMPSH1-4L TR	N/A, Stock Only
CMPSH1-4LE BK	N/A, Stock Only
CMPSH1-4LE 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@centralsemi.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.