

CMPSH1-4

**SURFACE MOUNT SILICON
HIGH CURRENT
SCHOTTKY RECTIFIER**



SOT-23F CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPSH1-4 is a High Current, Schottky Rectifier in a surface mount SOT-23F package suitable for high current applications in mobile communications and DC-DC converters.

MARKING CODE: SH1

FEATURES:

- High Current (1.0 Amp)
- Power SOT-23F Package

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

Continuous Reverse Voltage
Continuous Forward Current
Average Forward Current
Peak Forward Surge Current, $t \leq 100\mu\text{s}$
Peak Forward Surge Current, $t \leq 10\text{ms}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_R 40
 I_F 1.0
 I_O 1.75
 I_{FSM} 12
 I_{FSM} 5.2
 P_D 350
 T_J, T_{stg} -65 to +150
 Θ_{JA} 357

UNITS

V
A
A
A
A
mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$

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

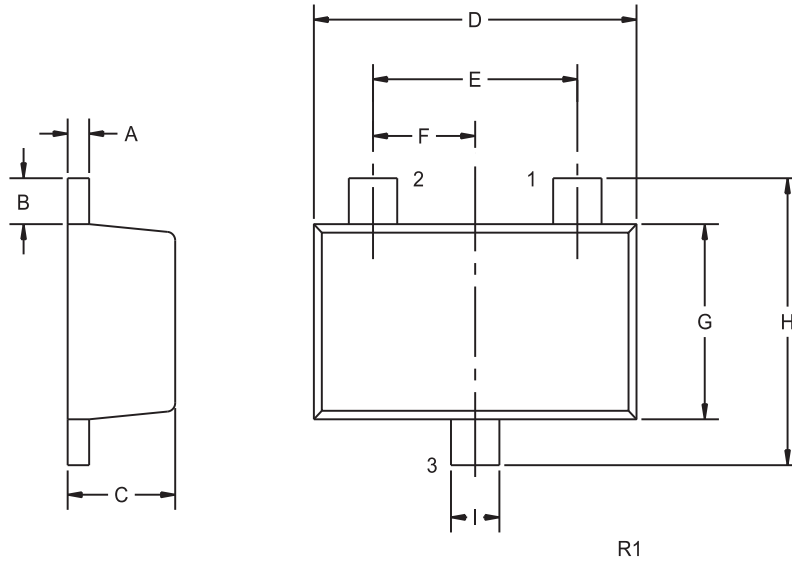
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=30\text{V}$		2.0	100	μA
BV_R	$I_R=100\mu\text{A}$	40			V
V_F	$I_F=100\text{mA}$		347	390	mV
V_F	$I_F=500\text{mA}$		418	480	mV
V_F	$I_F=1.0\text{A}$		471	550	mV
V_F	$I_F=1.5\text{A}$		551	620	mV
V_F	$I_F=1.0\text{A}$, @ $T_A=100^{\circ}\text{C}$		420		mV
C_J	$V_R=25\text{V}$, $f=1.0\text{MHz}$		25		pF
t_{rr}	$I_F=500\text{mA}$, $I_R=500\text{mA}$, $I_{rr}=50\text{mA}$		12		ns

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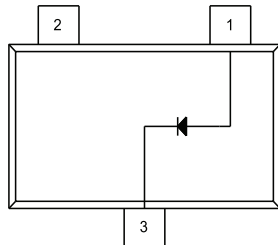
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SOT-23F CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: SH1

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)

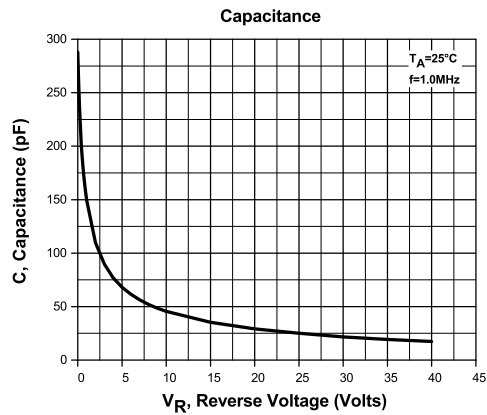
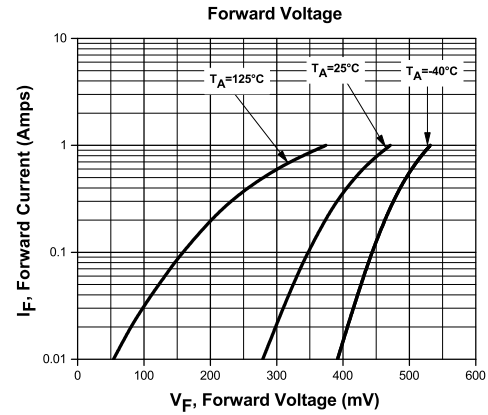
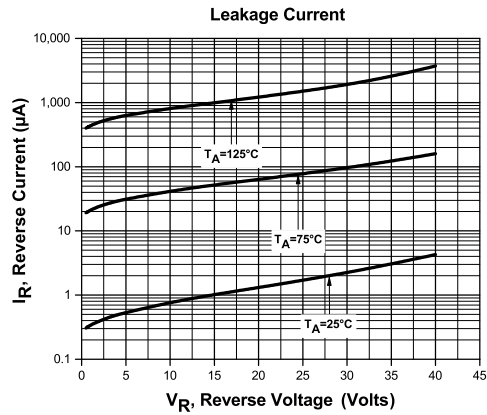
R4 (30-November 2015)

CMP SH1-4

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TYPICAL ELECTRICAL CHARACTERISTICS



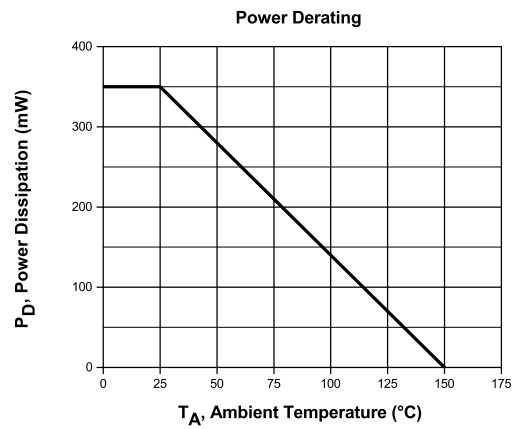
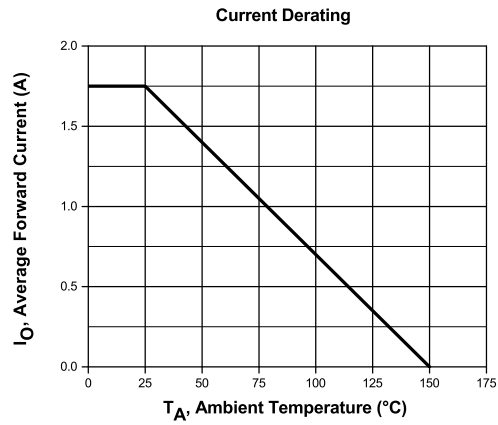
R4 (30-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R4 (30-November 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

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