



### CMPSH1-4L

**SURFACE MOUNT  
SILICON HIGH CURRENT  
ULTRA LOW  $V_F$   
SCHOTTKY BARRIER RECTIFIER**



**SOT-23F CASE**

# Central<sup>TM</sup> Semiconductor Corp.

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPSH1-4L is a high current, ultra low  $V_F$ , Schottky Barrier Rectifier in a surface mount SOT-23F package. It is suitable for all applications requiring a high current, small sized, operationally efficient Schottky rectifier.

#### MARKING CODE: CSL

#### 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 (300 $\mu A$  TYP @  $V_R=20V$ )
- Small, surface mount, power SOT-23F package

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

Continuous Reverse Voltage
Average Peak Forward Current
Non Repetitive Forward Current ( $t_p=8.3ms$ )
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

#### SYMBOL

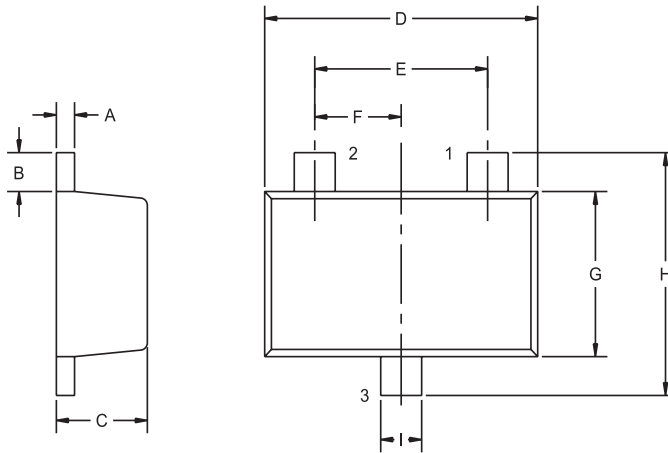
$V_R$	40	V
$I_O$	1.0	A
$I_{FSM}$	20	A
$P_D$	350	mW
$T_J, T_{stg}$	-65 to +125	$^\circ C$
$\Theta_{JA}$	286	$^\circ C/W$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=20V$		150	900	$\mu A$
$I_R$	$V_R=30V$		0.25	1.5	mA
$BV_R$	$I_R=1.0mA$	40			V
$V_F$	$I_F=100mA$		230	270	mV
$V_F$	$I_F=500mA$		300	340	mV
$V_F$	$I_F=1.0A$		340	390	mV
$V_F$	$I_F=1.5A$		390	420	mV
$C_T$	$V_R=10V, f=1.0MHz$		50		pF

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**SOT-23F CASE - MECHANICAL OUTLINE**

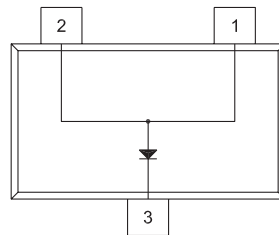


SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.008	0.10	0.20
B	0.012	0.020	0.30	0.50
C	0.031	0.039	0.80	1.00
D	0.110	0.118	2.80	3.00
E	0.075		1.90	
F	0.037		0.95	
G	0.059	0.067	1.50	1.70
H	0.091	0.098	2.30	2.50
I	0.014	0.018	0.35	0.45

SOT-23F (REV: R1)

R1

**PIN CONFIGURATION**

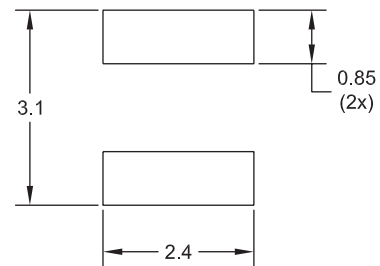


**LEAD CODE:**

- 1) ANODE
- 2) ANODE
- 3) CATHODE

**MARKING CODE: CSL**

**OPTIONAL MOUNTING PADS**



R0

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