

**CMPSH1-4LE**

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

**POWER  
23****SUB ONE  
CERTIFIED****SOT-23F CASE**

**Central**  
Semiconductor Corp.

[www.centralemi.com](http://www.centralemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPSH1-4LE 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 $\mu$ A 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	$^\circ C$
$\Theta_{JA}$	286	$^\circ C/W$

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

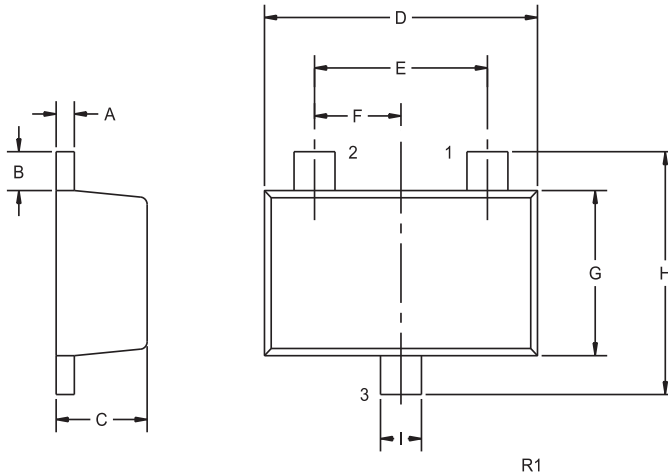
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=5.0V$		60	200	$\mu A$
$I_R$	$V_R=10V$		85	300	$\mu A$
$I_R$	$V_R=20V$		150	500	$\mu A$
$I_R$	$V_R=30V$		250	800	$\mu A$
$I_R$	$V_R=40V$		350	900	$\mu A$
$BV_R$	$I_R=1.0mA$	40			V
$V_F$	$I_F=100mA$			300	mV
$V_F$	$I_F=500mA$			350	mV
$V_F$	$I_F=1.0A$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

R3 (27-January 2010)

**CMP SH1-4LE**  
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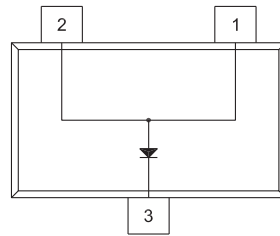
**SOT-23F CASE - MECHANICAL OUTLINE**



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**



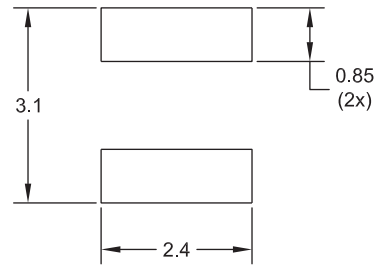
**LEAD CODE:**

- 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)

R3 (27-January 2010)