

CMPSH1-4
SURFACE MOUNT
HIGH CURRENT
SILICON SCHOTTKY RECTIFIER



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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
 $^\circ\text{C}$
 $^\circ\text{C/W}$

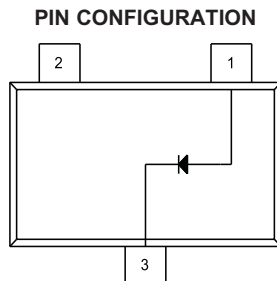
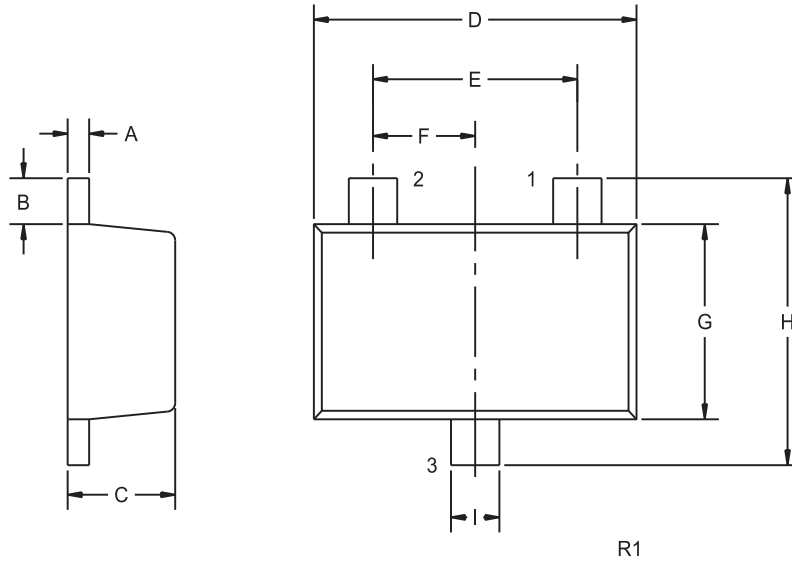
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=30\text{V}$			100	μA
BV_R	$I_R=100\mu\text{A}$	40			V
V_F	$I_F=100\text{mA}$			390	mV
V_F	$I_F=500\text{mA}$			480	mV
V_F	$I_F=1.0\text{A}$			550	mV
V_F	$I_F=1.5\text{A}$			620	mV
V_F	$I_F=1.0\text{A}, @ T_A=100^\circ\text{C}$		420		mV
C_T	$V_R=25\text{V}, f=1.0\text{MHz}$		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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SOT-23F CASE - MECHANICAL OUTLINE



LEAD CODE:
 1) Anode
 2) No Connection
 3) Cathode

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SYMBOL	DIMENSIONS			
	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)

R3 (27-January 2010)