

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)

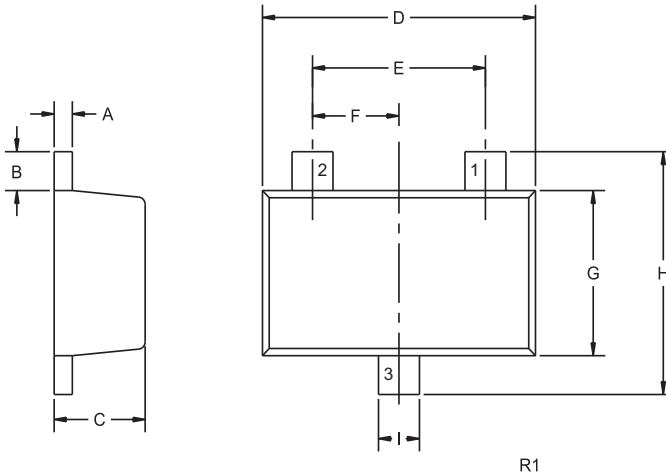
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=5.0V$		60	200	μA
I_R	$V_R=10V$		85	300	μA
I_R	$V_R=20V$		150	500	μA
I_R	$V_R=30V$		250	800	μA
I_R	$V_R=40V$		350	900	μA
BV_R	$I_R=1.0mA$	40			V
V_F	$I_F=100mA$			300	mV
V_F	$I_F=500mA$			350	mV
V_F	$I_F=1.0A$			400	mV
V_F	$I_F=1.5A$			450	mV
C_J	$V_R=10V,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

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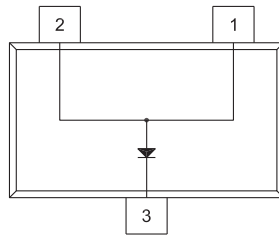
SOT-23F CASE - MECHANICAL OUTLINE



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



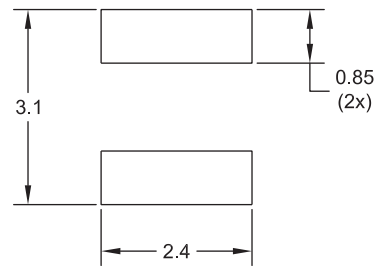
LEAD CODE:

- 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)

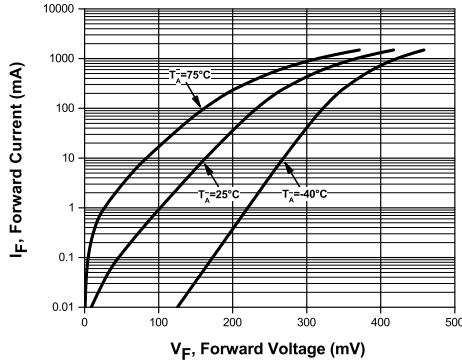
CMPSH1-4LE

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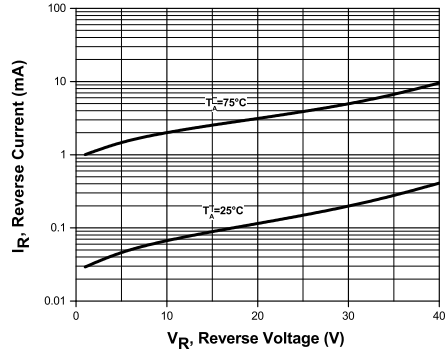


TYPICAL ELECTRICAL CHARACTERISTICS

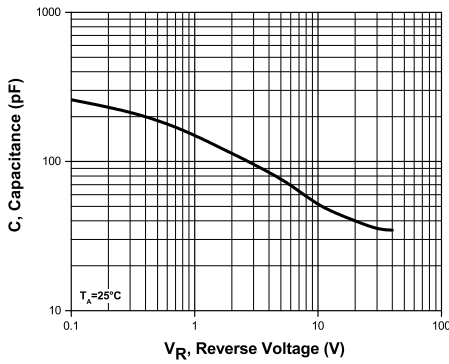
Forward Voltage



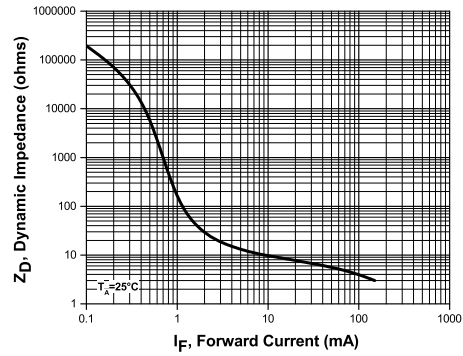
Leakage Current



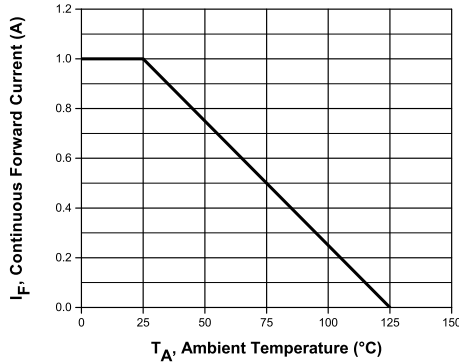
Capacitance



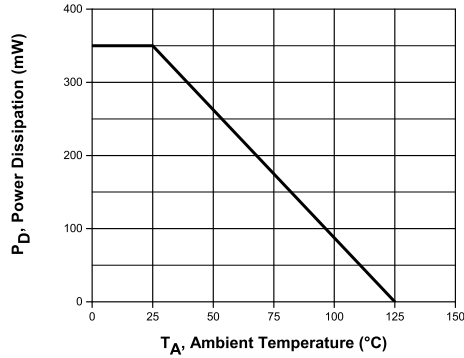
Forward Dynamic Impedance



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

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