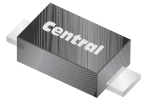


CMMSH1-40L

SURFACE MOUNT SILICON
LOW V_F
SCHOTTKY RECTIFIER
1.0 AMP, 40 VOLT



SOD-123F CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMMSH1-40L is a 1.0A, low V_F , silicon Schottky rectifier. This high efficiency, low V_F Schottky features high current capacity packaged in a small, thermally efficient, SOD-123F surface mount package. When compared to similar devices in the larger SMA package, this device is 58% smaller, with a 67% lower profile, making it ideally suited for applications where performance and size are critical.

MARKING CODE: CS40FL

APPLICATIONS:

- DC-DC converters
- Voltage clamping
- Protection circuits
- Battery powered applications including cell phones, digital cameras, pagers, PDAs, laptop computers, etc.

FEATURES:

- High current (1.0A Max), 40V device
- Low V_F (0.45V Max)
- High surge current 50A
- Thermally efficient SOD-123F Flat Lead package design

MAXIMUM RATINGS: ($T_J=25^\circ\text{C}$ unless otherwise noted)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
DC Blocking Voltage	V_R	40	V
Average Forward Current	I_O	1.0	A
Peak Forward Surge Current	I_{FSM}	50	A
Power Dissipation (Note 1)	P_D	550	mW
Operating Junction Temperature	T_J	-55 to + 125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to + 150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	181	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=20\text{V}$		3.0	150	μA
I_R	$V_R=40\text{V}$		10	500	μA
I_R	$V_R=40\text{V}, T_J=85^\circ\text{C}$			25	mA
BV_R	$I_R=0.5\text{mA}$	40			V
V_F	$I_F=1.0\text{A}$		0.4	0.45	V
C_J	$V_R=10\text{V}, f=1.0\text{MHz}$		70		pF

Notes: (1) FR-5 board (1.0 x 0.75 x 0.062in) with copper mounting pad area of 2.9mm²

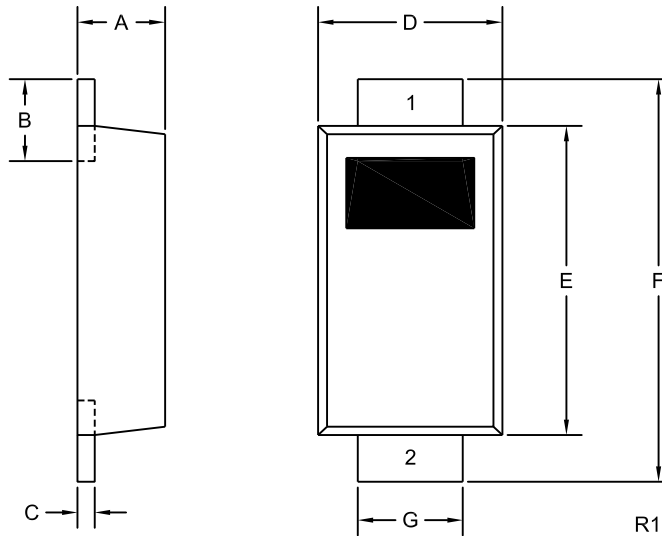
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SOD-123F CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: CS40FL

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.043	0.88	1.08
B	0.020	0.031	0.50	0.80
C	0.004	0.008	0.10	0.20
D	0.065	0.077	1.65	1.95
E	0.104	0.116	2.65	2.95
F	0.140	0.156	3.55	3.95
G	0.030	0.041	0.75	1.05

SOD-123F (REV:R1)

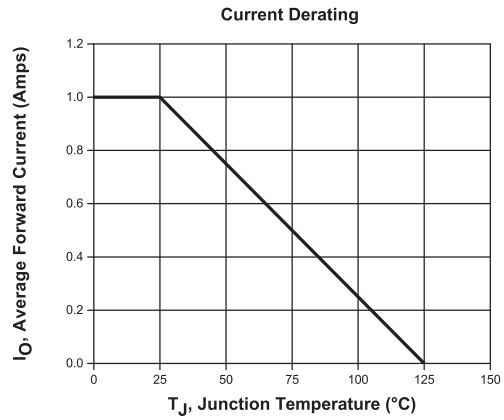
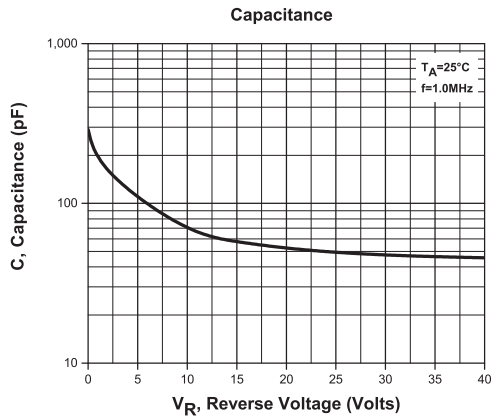
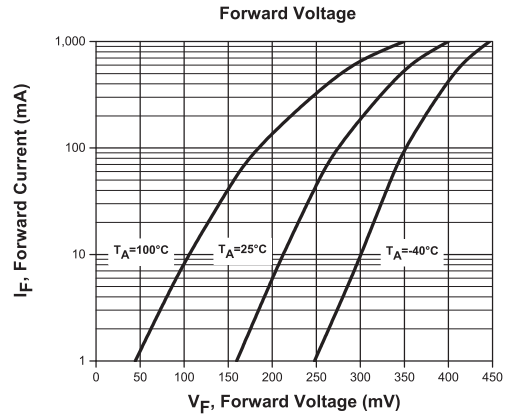
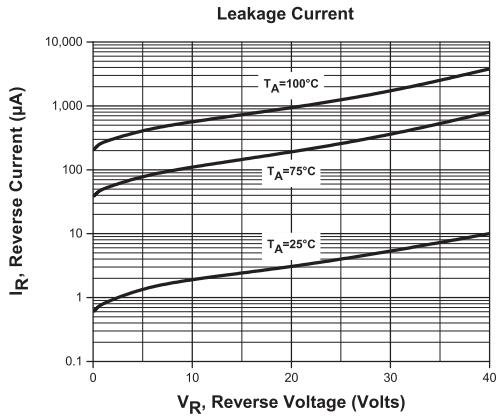
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TYPICAL ELECTRICAL CHARACTERISTICS



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