

CMMSH2-40

**SURFACE MOUNT SILICON
SCHOTTKY RECTIFIER
2.0 AMP, 40 VOLT**



SOD-123F CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMMSH2-40 is a 2.0A, silicon Schottky rectifier. This high efficiency, 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: CS240F

APPLICATIONS:

- DC-DC Converters
- Voltage Clamping
- Protection Circuits
- Battery powered applications including Cell Phones, Digital Cameras, Pagers, PDA's, Laptop Computers, etc.

FEATURES:

- High Current (2.0A Max), 40V Device
- V_F 0.5V Max
- High Surge Current 50A
- Thermally efficient SOD-123F Flat Lead package design

MAXIMUM RATINGS: ($T_J=25^\circ\text{C}$)

Peak Repetitive Reverse Voltage
DC Blocking Voltage
Average Forward Current
Peak Forward Surge Current
Power Dissipation (Note 1)
Operating Junction Temperature
Storage Temperature
Thermal Resistance

SYMBOL

V_{RRM} 40
 V_R 40
 I_O 2.0
 I_{FSM} 50
 P_D 550
 T_J -55 to + 125
 T_{stg} -55 to + 150
 Θ_{JA} 181

UNITS

V
V
A
A
mW
 $^\circ\text{C}$
 $^\circ\text{C}$
 $^\circ\text{C/W}$

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	$V_R=40\text{V}$		23	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	$I_F=2.0\text{A}$		0.45	0.50	V
C_J	$V_R=10\text{V}$, $f=1.0\text{MHz}$			150	pF
C_J	$V_R=0$, $f=1.0\text{MHz}$		292		pF

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

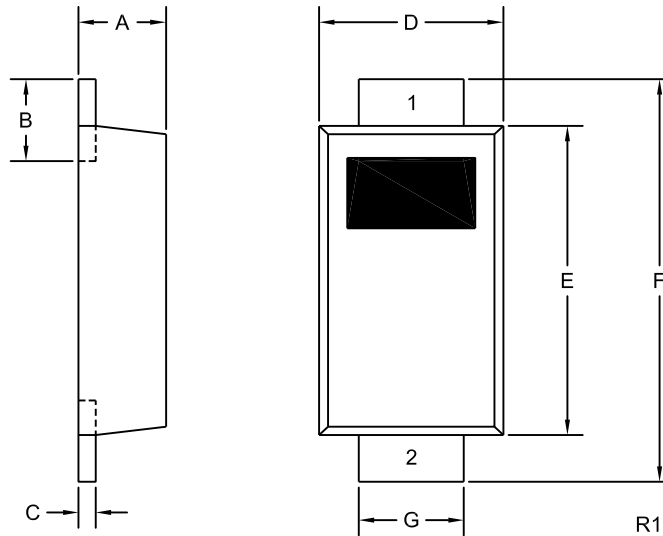
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SOD-123F CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

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DIMENSIONS				
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)

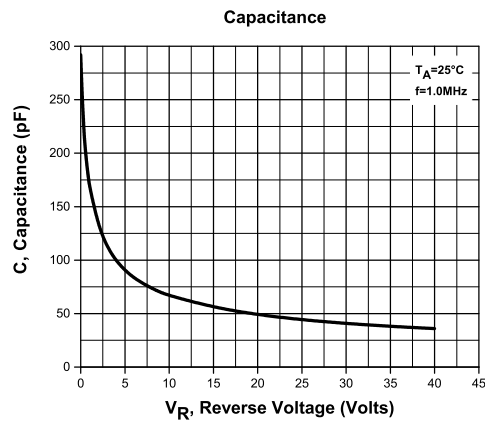
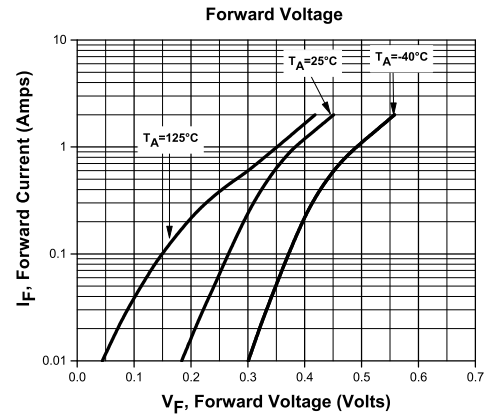
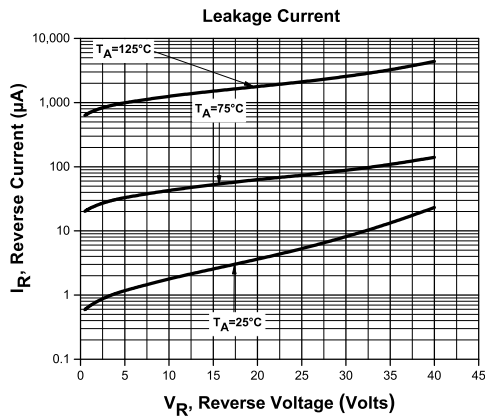
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TYPICAL ELECTRICAL CHARACTERISTICS



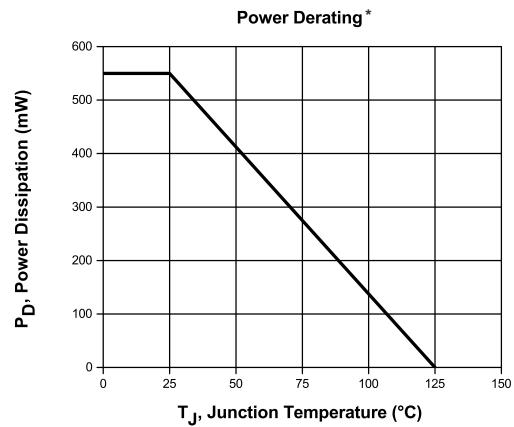
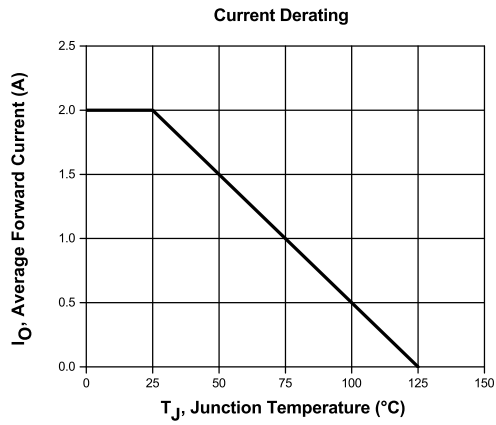
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TYPICAL ELECTRICAL CHARACTERISTICS



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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

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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