

CMMR1S-02

**SURFACE MOUNT  
SUPER FAST RECOVERY  
SILICON RECTIFIER  
1 AMP, 200 VOLTS**



**SOD-123F CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMMR1S-02 is a 1.0 Amp Silicon Super Fast Recovery Rectifier in the SOD-123F surface mount package. This high quality, well constructed, highly reliable device is designed for use in all types of commercial, industrial, entertainment, computer and automotive applications.

**MARKING CODE: CSF02F**

**FEATURES:**

- Small size (58% smaller than the SMA package)
- 67% lower profile than SMA
- Greatly improved power dissipation per board area compared to the SMA
- Low Forward Voltage
- High Current
- Thermally efficient Flat Lead package design

<b>MAXIMUM RATINGS:</b> ( $T_A=25^\circ\text{C}$ unless otherwise noted)	<b>SYMBOL</b>		<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	V
DC Blocking Voltage	$V_R$	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	V
Average Forward Current ( $T_L=110^\circ\text{C}$ )	$I_O$	1.0	A
Peak Forward Surge Current (8.3ms)	$I_{FSM}$	30	A
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	180	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=200\text{V}$		10	$\mu\text{A}$
$I_R$	$V_R=200\text{V}, T_A=100^\circ\text{C}$		50	$\mu\text{A}$
$V_F$	$I_F=1.0\text{A}$		0.95	V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Rec. to } 0.25\text{A}$		35	ns
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$	4.0		pF

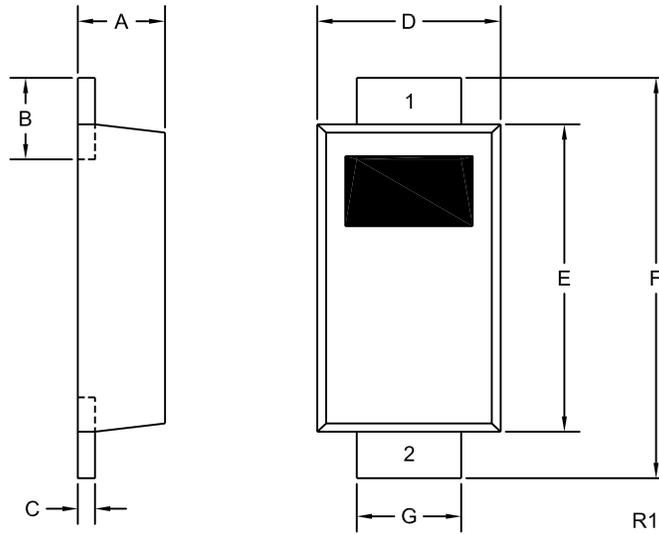
R2 (25-January 2010)

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SOD-123F CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: CSF02F

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)

R2 (25-January 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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