CMMR1U SERIES

SURFACE MOUNT **ULTRA FAST RECOVERY SILICON RECTIFIER** 1 AMP, 200 THRU 800 VOLTS





www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMMR1U Series are high quality 1.0 Amp Surface Mount Silicon Rectifiers, well constructed, highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. The SOD-123F case occupies 58% less board space than the SMA, with a 67% lower profile.

MARKING CODE: SEE MARKING CODE TABLE **ON FOLLOWING PAGE**



SOD-123F CASE

FEATURES:

- Flat lead design and clip assembly allow for a larger die size and improved thermal efficiency
- Low cost

- · Superior lot to lot consistency
- · High reliability
- **MAXIMUM RATINGS:** (T_A=25°C unless otherwise noted)

		SYMBOL	CMMR1U -02	CMMR1U -04	CMMR1U -06	CMMR1U -08	UNITS
Pea	k Repetitive Reverse Voltage	V _{RRM}	200	400	600	800	V
DC	Blocking Voltage	v_R	200	400	600	800	V
RM	S Reverse Voltage	V _{R(RMS)}	140	280	420	560	V
Ave	rage Forward Current (T _L =90°C)	IO		1	.0		Α
Pea	k Forward Surge Current (8.3ms)	I_{FSM}		3	0		Α
Оре	erating and Storage Junction Temperature	T _J , T _{stg}		-65 to	+150		°C
The	rmal resistance (Note 1)	$\Theta_{\sf JA}$		18	30		°C/W
The	rmal resistance (Note 2)	$\Theta_{\sf JA}$		6	5		°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL I _R	TEST CONDITIONS V _R =Rated V _{RRM}	TYP	MAX 1.0	UNITS μΑ
I_{R}	V _R =Rated V _{RRM} , T _A =125°C		50	μΑ
V_{F}	I _F =1.0A (CMMR1U-02)		1.0	V
V _F	I _F =1.0A (CMMR1U-04)		1.4	V
V _F	I _F =1.0A (CMMR1U-06, -08)		1.7	V
CJ	V_R =4.0V, f=1.0MHz	9.0		pF
t _{rr}	I_F =0.5A, I_R =1.0A, I_{rr} =0.25A (CMMR1U-02, -04)		50	ns
t _{rr}	I_F =0.5A, I_R =1.0A, I_{rr} =0.25A (CMMR1U-06, -08)		100	ns

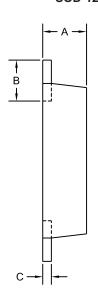
(1) FR-4 Epoxy PCB with copper mounting pad area of 2.2mm² (2) FR-4 Epoxy PCB with copper mounting pad area of 36mm²

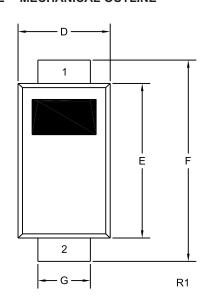
CMMR1U SERIES

SURFACE MOUNT ULTRA FAST RECOVERY SILICON RECTIFIER 1 AMP, 200 THRU 800 VOLTS



SOD-123F CASE - MECHANICAL OUTLINE





DEVICE	MARKING CODE		
CMMR1U-02	CU02F		
CMMR1U-04	CU04F		
CMMR1U-06	CU06F		
CMMR1U-08	CU08F		

DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
Α	0.035	0.043	0.88	1.08		
В	0.020	0.031	0.50	0.80		
С	0.004	0.008	0.10	0.20		
D	0.065	0.077	1.65	1.95		
Е	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)

LEAD CODE: 1) Cathode

- 2) Anode

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 guick 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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp. 145 Adams Avenue Hauppauge, NY 11788 USA

Main Tel: (631) 435-1110 Main Fax: (631) 435-1824

Support Team Fax: (631) 435-3388

www.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

Worldwide Distributors:

www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms

www.centralsemi.com (001)