

CMMR1U-02
CMMR1U-04
CMMR1U-06
SURFACE MOUNT
ULTRA FAST RECOVERY
SILICON RECTIFIERS
1.0 AMP, 200 THRU 600 VOLTS

CentralTM
Semiconductor Corp.

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



SOD-123F CASE

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 CODES: SEE MARKING CODE TABLE ON FOLLOWING PAGE

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

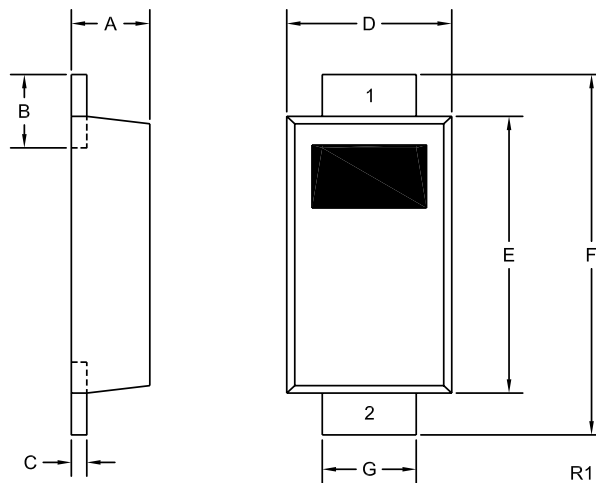
	SYMBOL	CMMR1U-02	CMMR1U-04	CMMR1U-06	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	400	600	V
DC Blocking Voltage	V_R	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Forward Current ($T_L=90^\circ\text{C}$)	I_O		1.0		A
Peak Forward Surge Current (8.3ms)	I_{FSM}		30		A
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		$^\circ\text{C}$
Typical Thermal resistance	θ_{JA}		180		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R=\text{Rated } V_{RRM}$		10	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$		50	μA
V_F	$I_F=1.0\text{A (CMMR1U-02)}$		1.0	V
V_F	$I_F=1.0\text{A (CMMR1U-04)}$		1.25	V
V_F	$I_F=1.0\text{A (CMMR1U-06)}$		1.4	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$	9.0		pF
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Recover to } 0.25\text{A (CMMR1U-02)}$		35	ns
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Recover to } 0.25\text{A (CMMR1U-04)}$		50	ns
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Recover to } 0.25\text{A (CMMR1U-06)}$		75	ns

R1 (25-October 2005)

SOD-123F CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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)

MARKING CODE

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

LEAD CODE:

- 1) CATHODE
- 2) ANODE