



CMR3S-01  
 CMR3S-02  
 CMR3S-04  
 CMR3S-06

**SURFACE MOUNT SUPER FAST RECOVERY  
 SILICON RECTIFIER  
 3.0 AMP, 100 THRU 600 VOLTS**



**SMC CASE**

• Device is **Halogen Free** by Design

# Central™

## Semiconductor Corp.

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR 3.0 Amp Surface Mount Silicon Super Fast Recovery Rectifier is a high quality, well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. To order devices on 16mm Tape and Reel (3000/13" Reel), add TR13 suffix to part number.

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

### FEATURES:

- Super fast recovery (35ns MAX)
- High reliability
- Glass passivated chip
- Special selections available
- Superior lot to lot consistency
- "C" Bend construction provides strain relief when mounted on PC board

### MAXIMUM RATINGS: (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	CMR3S-01	CMR3S-02	CMR3S-04	CMR3S-06	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	V
DC Blocking Voltage	V <sub>R</sub>	100	200	400	600	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	70	140	280	420	V
Average Forward Current (T <sub>L</sub> =75°C)	I <sub>O</sub>			3.0		A
Peak Forward Surge Current (8.3ms)	I <sub>FSM</sub>			100		A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>			-65 to +150		°C
Thermal Resistance	θ <sub>JL</sub>			16		°C/W

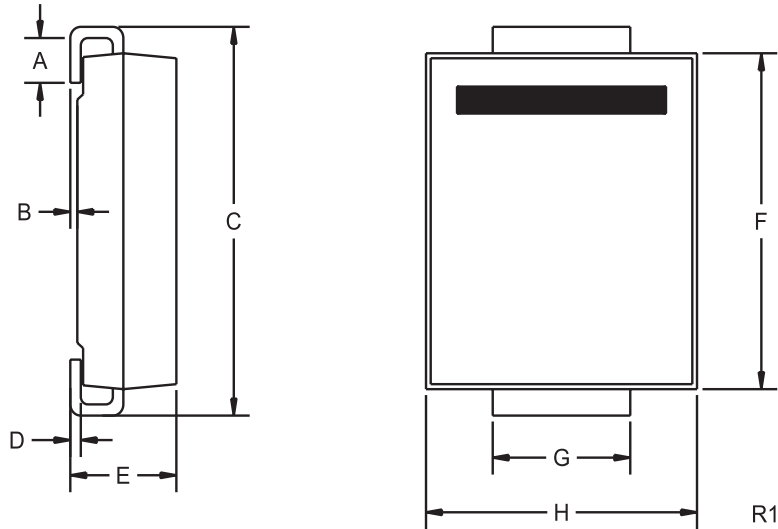
### ELECTRICAL CHARACTERISTICS: (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>		1.0	μA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C		200	μA
V <sub>F</sub>	I <sub>F</sub> =3.0A (CMR3S-01, CMR3S-02)		0.95	V
V <sub>F</sub>	I <sub>F</sub> =3.0A (CMR3S-04)		1.25	V
V <sub>F</sub>	I <sub>F</sub> =3.0A (CMR3S-06)		1.70	V
t <sub>rr</sub>	I <sub>F</sub> =500mA, I <sub>R</sub> =1.0A, I <sub>rr</sub> =250mA		35	ns
C <sub>j</sub>	V <sub>R</sub> =4.0V, f=1.0MHz	45		pF

R1 (15-September 2009)

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**SMC CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMR3S-01	CS301
CMR3S-02	CS302
CMR3S-04	CS304
CMR3S-06	CS306

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.124	2.75	3.15
H	0.220	0.245	5.59	6.22

SMC (REV: R1)