

CMR5H-06

**SURFACE MOUNT SILICON
HYPERFAST
RECOVERY RECTIFIER
5.0 AMP, 600 VOLT**

**HYPER
FAST**



SMC CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR5H-06 is a HyperFast power rectifier manufactured in the epoxy molded SMC case. The extremely fast reverse recovery characteristics make this device an ideal choice for PFC and other fast switching applications.

MARKING CODE: C5H06

APPLICATIONS:

- Power factor correction
- Motor control
- DC-DC output rectification
- Freewheeling diode

FEATURES:

- HyperFast recovery time (20ns TYP)
- High surge capability
- Low leakage current

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
DC Blocking Voltage	V_R	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	420	V
Average Forward Current ($T_L=75^\circ\text{C}$)	I_O	5.0	A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	I_{FSM}	100	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +175	$^\circ\text{C}$
Thermal Resistance	θ_{JL}	10	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=600\text{V}$		0.2	1.0	μA
I_R	$V_R=600\text{V}, T_A=150^\circ\text{C}$			500	μA
BV_R	$I_R=100\mu\text{A}$	600			V
V_F	$I_F=5.0\text{A}$		1.55	1.70	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		17		pF
t_{rr}	$I_F=5.0\text{A}, V_R=400\text{V}, di/dt=200\text{A}/\mu\text{s}$		20	22	ns

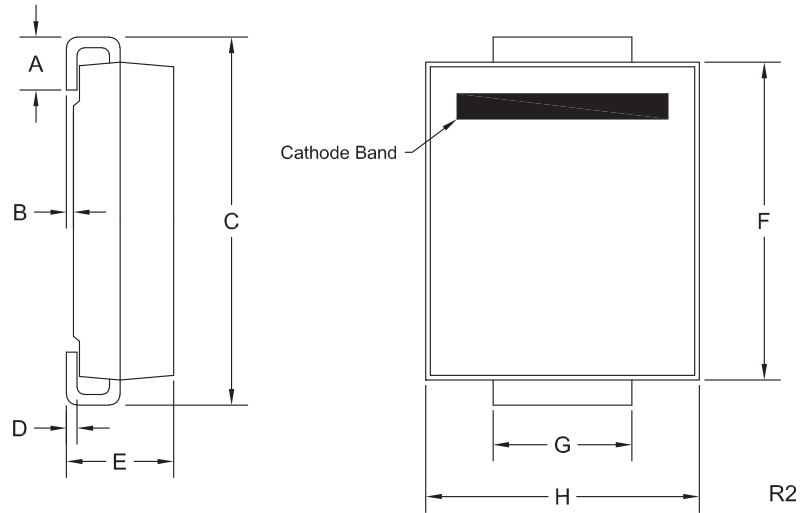
R0 (12-February 2014)

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SMC CASE - MECHANICAL OUTLINE



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SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	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	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

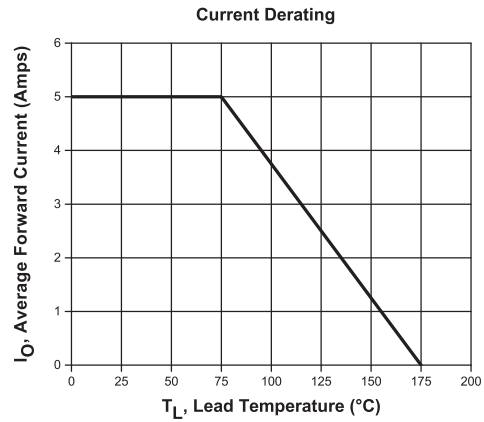
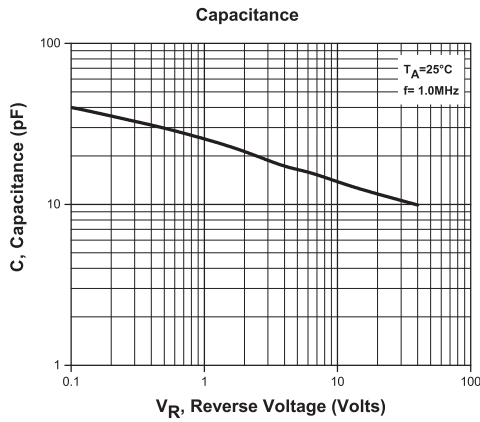
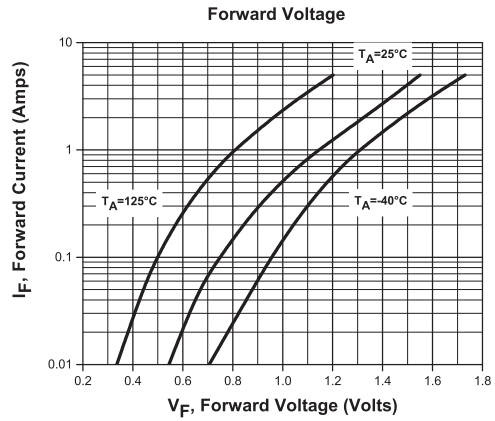
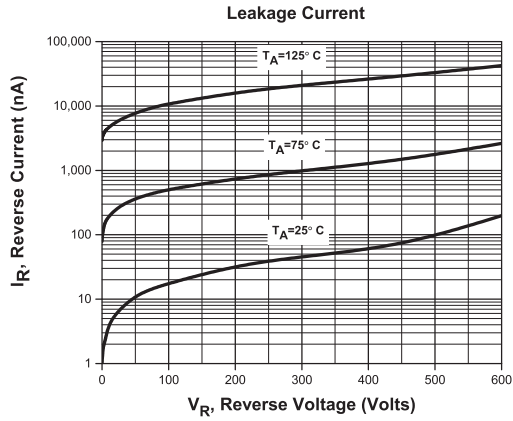
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TYPICAL ELECTRICAL CHARACTERISTICS



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