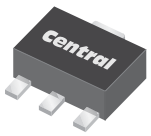
CS89M
CS89N

SURFACE MOUNT
0.8 AMP SILICON SCR
600 THRU 800 VOLTS



SOT-89 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS89M series type is an Epoxy Molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)	**SYMBOL**	**CS89M**	**CS89N**	**UNITS**
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	600	800	V
RMS On-State Current (T_C=60°C)	$I_{T(RMS)}$	0.8		A
Peak One Cycle Surge, t=10ms	I_{TSM}	10		A
I^2t Value for Fusing, t=10ms	I^2t	0.24		A^2s
Peak Gate Power, tp=10μs	P_{GM}	2.0		W
Average Gate Power Dissipation	$P_{G(AV)}$	0.1		W
Peak Gate Current, tp=10μs	I_{GM}	1.0		A
Peak Gate Voltage, tp=10μs	V_{GM}	8.0		V
Operating Junction Temperature	T_J	-40 to +125		°C
Storage Temperature	T_{stg}	-40 to +150		°C
Thermal Resistance	Θ_{JA}	104		°C/W

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

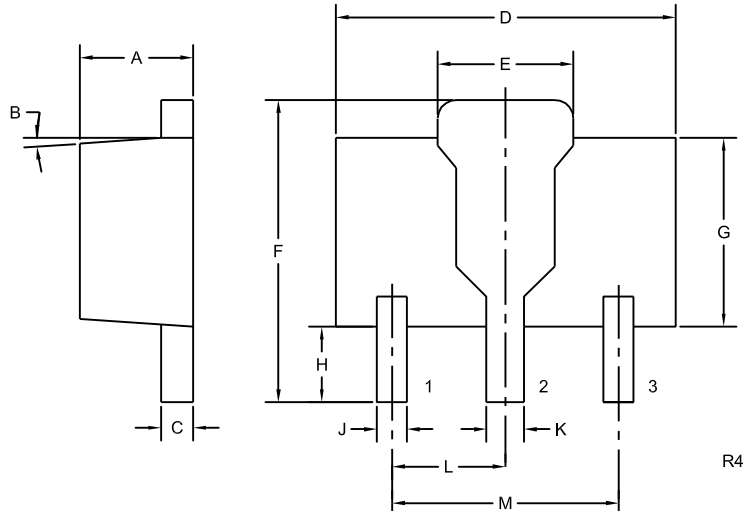
SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, R_{GK}=1KΩ			1.0	μA
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, R_{GK}=1KΩ, T_C=125°C			100	μA
I_{GT}	V_D=12V		20	200	μA
I_H	R_{GK}=1KΩ		0.25	5.0	mA
V_{GT}	V_D=12V		0.61	0.8	V
V_{TM}	I_{TM}=1.0A, tp=380μs		1.2	1.7	V
dv/dt	V_D=$^2/_3$ V_{DRM}, R_{GK}=1KΩ, T_C=125°C	25			V/μs

R1 (12-February 2010)

CS89M
CS89N

SURFACE MOUNT
0.8 AMP SILICON SCR
600 THRU 800 VOLTS

SOT-89 CASE - MECHANICAL OUTLINE



(Bottom View)

LEAD CODE:
1) Gate
2) Anode
3) Cathode

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)