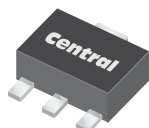


CS89M
CS89N

SURFACE MOUNT
0.8 AMP SILICON SCR
600 THRU 800 VOLTS



SOT-89 CASE



www.centralemi.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: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	CS89M	CS89N	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	600	800	V
RMS On-State Current ($T_C=60^{\circ}\text{C}$)	$I_{\text{T(RMS)}}$		0.8	A
Peak One Cycle Surge, $t=10\text{ms}$	I_{TSM}		10	A
I^2t Value for Fusing, $t=10\text{ms}$	I^2t		0.24	A^2s
Peak Gate Power, $t_p=10\mu\text{s}$	P_{GM}		2.0	W
Average Gate Power Dissipation	$P_{\text{G(AV)}}$		0.1	W
Peak Gate Current, $t_p=10\mu\text{s}$	I_{GM}		1.0	A
Peak Gate Voltage, $t_p=10\mu\text{s}$	V_{GM}		8.0	V
Operating Junction Temperature	T_{J}	-40 to +125		$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40 to +150		$^{\circ}\text{C}$
Thermal Resistance	θ_{JA}	104		$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1\text{K}\Omega$			1.0	μA
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1\text{K}\Omega, T_C=125^{\circ}\text{C}$			100	μA
I_{GT}	$V_{\text{D}}=12\text{V}$		20	200	μA
I_{H}	$R_{\text{GK}}=1\text{K}\Omega$		0.25	5.0	mA
V_{GT}	$V_{\text{D}}=12\text{V}$		0.61	0.8	V
V_{TM}	$I_{\text{TM}}=1.0\text{A}, t_p=380\mu\text{s}$		1.2	1.7	V
dv/dt	$V_{\text{D}}=2/3 V_{\text{DRM}}, R_{\text{GK}}=1\text{K}\Omega, T_C=125^{\circ}\text{C}$	25			V/ μs

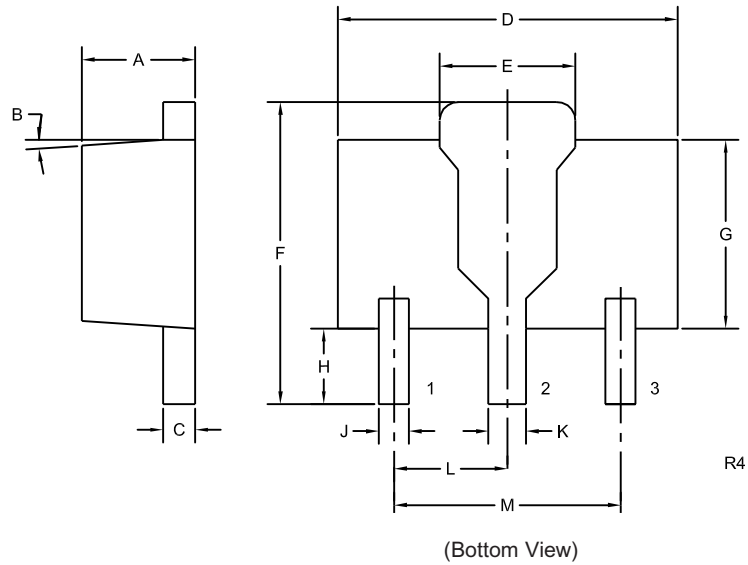
R1 (12-February 2010)

CS89M
CS89N

SURFACE MOUNT
0.8 AMP SILICON SCR
600 THRU 800 VOLTS



SOT-89 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Gate
- 2) Anode
- 3) Cathode

MARKING:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	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)

R1 (12-February 2010)

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 quick 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).

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