

CentralTM

Semiconductor Corp.

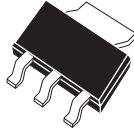
DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS223M type is an epoxy molded Silicon Controlled Rectifier designed for circuit sensing, detection and control applications including lamp drivers and small motor control

MARKING CODE: FULL PART NUMBER

CS223M

0.8 AMP SCR
600 VOLTS



SOT-223 CASE

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

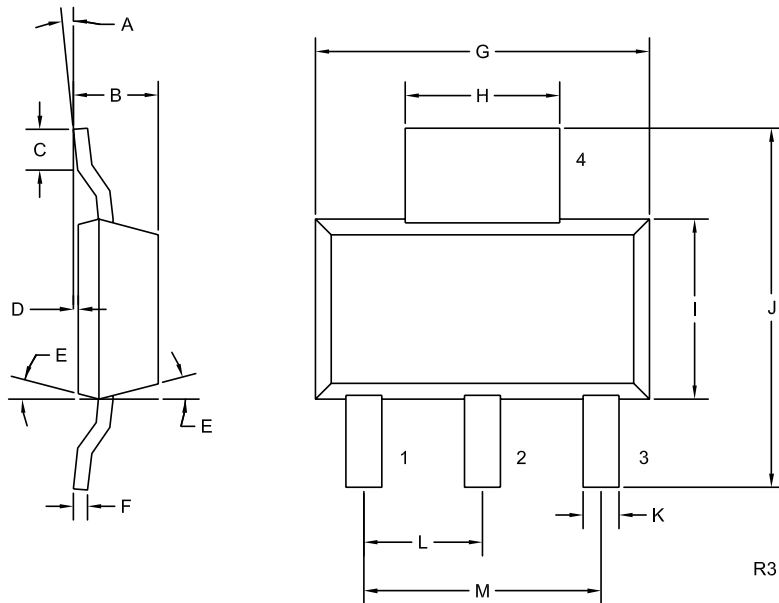
	SYMBOL		UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	600	V
RMS On-State Current ($T_C=60^\circ\text{C}$)	$I_T(\text{RMS})$	0.8	A
Peak One Cycle Surge ($t=10\text{ms}$)	I_{TSM}	10	A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t	0.24	A^2s
Peak Gate Power ($t_p=10\mu\text{s}$)	P_{GM}	2.0	W
Average Gate Power Dissipation	$P_{G(AV)}$	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
Storage Temperature	T_{stg}	-40 to +150	$^\circ\text{C}$
Junction Temperature	T_J	-40 to +125	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	62.5	$^\circ\text{C/W}$

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

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

R0 (13-January 2005)

SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) GATE
- 2) ANODE
- 3) CATHODE
- 4) ANODE

MARKING CODE:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	—	0.45	—
D	0.000	0.004	0.00	0.10
E	15°		15°	
F	0.009	0.014	0.23	0.35
G	0.248	0.264	6.30	6.70
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R3)