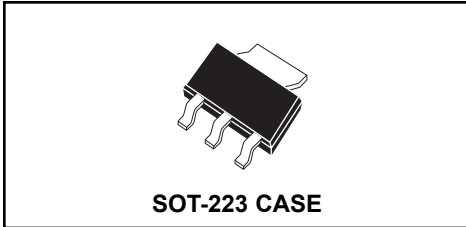


**CS223M**  
**0.8 AMP SCR**  
**600 VOLTS**



# Central<sup>TM</sup>

## 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**

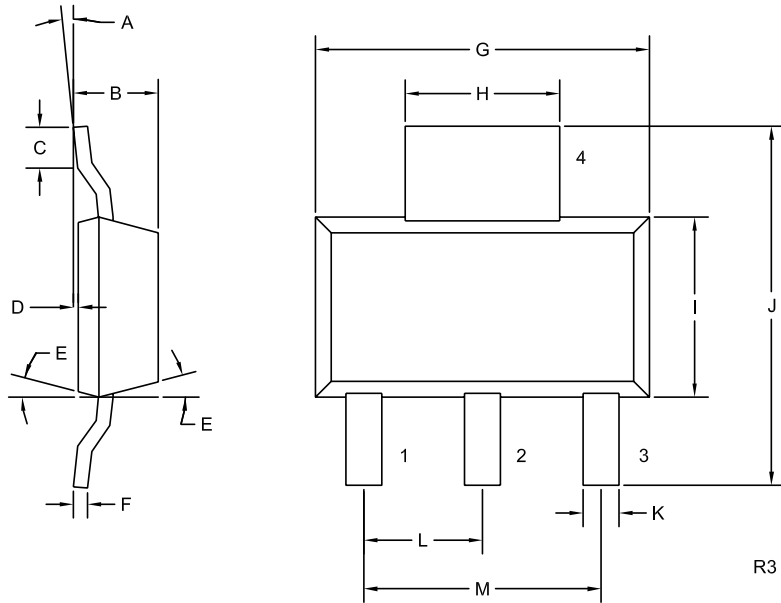
**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

	<b>SYMBOL</b>		<b>UNITS</b>
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	$\text{A}^2\text{s}$
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	$\theta_{JA}$	62.5	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega$			1.0	$\mu\text{A}$
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$			100	$\mu\text{A}$
$I_{GT}$	$V_D=12\text{V}$		20	200	$\mu\text{A}$
$I_H$	$R_{GK}=1\text{K}\Omega$		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			$\text{V}/\mu\text{s}$

SOT-223 CASE - MECHANICAL OUTLINE



**LEAD CODE:**

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

**MARKING CODE:**

**FULL PART NUMBER**

SYMBOL	DIMENSIONS		MILLIMETERS	
	INCHES		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)