

## 1 Amp, 2 Amp and 4 Amp TRIACs in a SOT-223



### CQ223 Series

#### features →

- 600 and 800 Volts
- Low 1.8mm profile (23% lower than DPAK)
- Utilizes 28% less board space than an industry standard DPAK

#### description →

The CENTRAL SEMICONDUCTOR CQ223M series (1 Amp), CQ223-2M series (2 Amp), and CQ223-4M series (4 Amp) types are Epoxy Molded Silicon TRIACs designed for full wave AC control applications featuring gate triggering in all four (4) quadrants. The small size and low profile of these SOT-223 devices are perfect for designs with a limited board space or height requirements.

For information on these devices or any other thyristors manufactured by Central™, visit: [www.centrasemi.com/thyristors](http://www.centrasemi.com/thyristors)

Sample Devices available upon request.



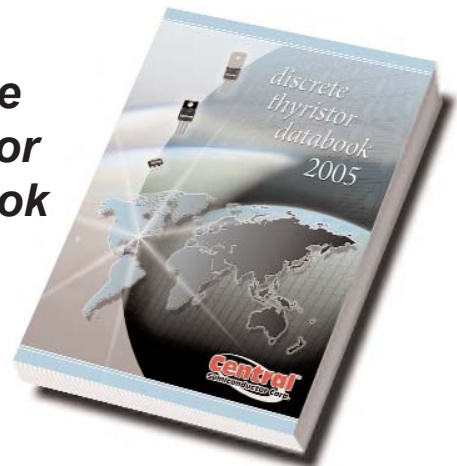
### selection guide

With Central you're not limited to just 1 amp in a SOT-223.

		Extended Range	
I <sub>T</sub> (AMPS)	1.0	2.0	4.0
@ T <sub>C</sub> (°C)	80	80	80
I <sub>TSM</sub> (AMPS)	10	20	40
V <sub>DRM</sub> , V <sub>RSM</sub> (VOLTS)			
600	CQ223M	CQ223-2M	CQ223-4M
800	CQ223N*	CQ223-2N*	CQ223-4N*
I <sub>GT QI</sub>	10mA	5.0mA	5.0mA
I <sub>GT QII</sub>	10mA	5.0mA	5.0mA
I <sub>GT QIII</sub>	10mA	5.0mA	5.0mA
I <sub>GT QIV</sub>	10mA	8.0mA	9.0mA
V <sub>GT QI-QIII</sub>	2.0V	1.8V	1.75V
V <sub>GT QIV</sub>	2.5V	1.8V	1.75V
I <sub>H</sub>	10mA	5.0mA	5.0mA

\* 800 volt devices are available on request. Please consult factory.

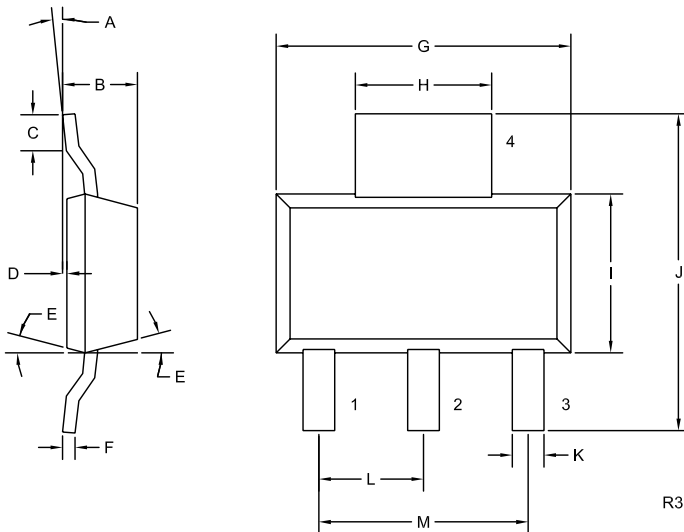
### 2005 Discrete Thyristor Databook



To order please visit: [www.centrasemi.com/catalog](http://www.centrasemi.com/catalog)

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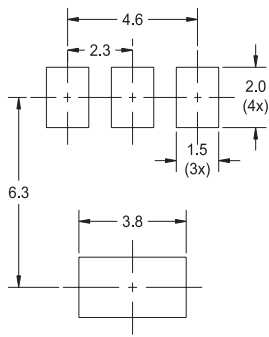
## Mechanical Specifications - SOT-223



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	

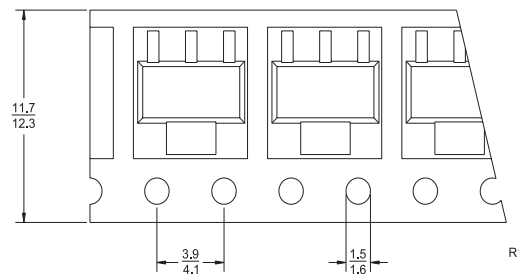
SOT-223 (REV: R3)

### Mounting Pad Geometry (Dimensions in mm)



### Tape Dimensions and Orientation (Dimensions in mm)

Tape Width:  
12mm



\* Devices are taped in accordance with Electronic Industries Association Standard EIA-481-1-A

Direction of Unreeling

### Packaging Base

- 7" Reel = 1,000 pcs. (add TR suffix to part number)
- 13" Reel = 4,000 pcs. (add TR13 suffix to part number)
- Bulk = 250 pcs. (add BK suffix to part number)

### Lead Code:

- 1) MT1    2) MT2
- 3) GATE   4) MT2

### Ordering Information

- For devices taped and reeled on 7" reels, add TR suffix to part number.
- For devices taped and reeled on 13" reels, add TR13 suffix to part number.
- For devices bulk packed, add BK suffix to part number.
- All SMDs are available bulk packed, for prototype and manual placement applications.

For more information on this product please visit our website at [www.centrasemi.com](http://www.centrasemi.com)

**Central**<sup>TM</sup>  
Semiconductor Corp.

*Innovations in Discrete  
Semiconductors*

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PA SOT-223 TRIAC