







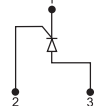





Thyristors

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|--------------|-------------|
| SCRs | 66-67 |
| TRIACs | 68-69 |

SCRs

0.2 to 4.0A
100 to 800V

Package dimensions shown are maximum values in mm.


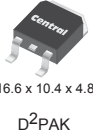


| I_T (AMPS) | 0.2 | 0.8 | | | 2.0 | 4.0 | |
|----------------------|---|--|--|---|---|--|----------------|
| @ $T_C / ^*T_A$ (°C) | 25 | 60 | 25 | 25 | 60 | 85 | 25 |
| I_{TSM} (AMPS) | 7.5 | 10 | 10 | 10 | 10 | 30 | 15 |
| CASE |  3.05 x 2.49 x 1.09 SOT-23 |  4.7 x 4.5 x 1.7 SOT-89 |  6.7 x 7.3 x 1.8 SOT-223 | | |  10.73 x 6.81 x 2.75 DPAK | |
| V_{RRM} (VOLTS) | | | | | | | |
| 100 | - | - | - | - | - | - | MCR703A |
| 200 | - | - | - | - | - | - | MCR704A |
| 300 | - | - | - | - | - | - | - |
| 400 | CMPS5064 | - | CZS5064 | - | - | - | MCR706A |
| 600 | - | CS89M | - | CS223M | CS223-2M | CS223-4M | MCR708A |
| 800 | - | CS89N* | - | - | CS223-2N* | CS223-4N* | - |
| I_{GT} | 200µA | 200µA | 200µA | 200µA | 200µA | 200µA | 75µA |
| V_{GT} | 0.8V | 0.8V | 0.8V | 0.8V | 0.8V | 0.8V | 0.8V |
| I_H | 5.0mA | 5.0mA | 5.0mA | 5.0mA | 2.0mA | 2.0mA | 2.0mA |
| PINOUT |  |  |  |  |  |  | |

* Available on request. Please consult factory.

SCRs (continued)

**4.0 to 25A
400 to 800V**

Package dimensions shown are maximum values in mm.





| I_T (AMPS) | 4.0 | | 8.0 | | 12 | 16 | 25 |
|-------------------|--|---------|---------|----------|--|-----------|-----------|
| @ T_C (°C) | 25 | 85 | 90 | 90 | 90 | 90 | 90 |
| I_{TSM} (AMPS) | 15 | 30 | 80 | 80 | 120 | 160 | 250 |
| CASE |  10.73 x 6.81 x 2.75 DPAK | | | |  16.6 x 10.4 x 4.8 D ² PAK | | |
| V_{RRM} (VOLTS) | | | | | | | |
| 400 | MCR716 | – | – | – | – | – | – |
| 600 | MCR718 | CSD-4M | CSD-8M | CSDD-8M | CSDD-12M | CSDD-16M | CSDD-25M |
| 800 | – | CSD-4N* | CSD-8N* | CSDD-8N* | CSDD-12N* | CSDD-16N* | CSDD-25N* |
| I_{GT} | 75µA | 200µA | 15mA | 15mA | 15mA | 15mA | 30mA |
| V_{GT} | 0.8V | 0.8V | 1.5V | 1.5V | 1.5V | 1.5V | 1.5V |
| I_H | 2.0mA | 2.0mA | 20mA | 20mA | 20mA | 20mA | 50mA |
| PINOUT |  | | | |  | | |

* Available on request. Please consult factory.

TRIACS

2.0 to 4.0A
400 to 800V

Package dimensions shown are maximum values in mm.



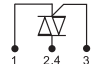
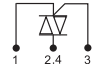
| I_T (AMPS) | 2.0 | | 4.0 |
|-------------------|--|-----------|---|
| @ T_C (°C) | 50 | 80 | 80 |
| I_{TSM} (AMPS) | 20 | 10 | 40 |
| CASE |  4.7 x 4.5 x 1.7 SOT-89 | |  6.7 x 7.3 x 1.8 SOT-223 |
| V_{RRM} (VOLTS) | | | |
| 400 | – | – | – |
| 600 | CQ89-2M | CQ223-2M | CQ223-4M |
| 800 | CQ89-2N* | CQ223-2N* | CQ223-4N* |
| $I_{GT\ QI}$ | 5.0mA | 5.0mA | 5.0mA |
| $I_{GT\ QII}$ | 5.0mA | 5.0mA | 5.0mA |
| $I_{GT\ QIII}$ | 5.0mA | 5.0mA | 5.0mA |
| $I_{GT\ QIV}$ | 8.0mA | 8.0mA | 9.0mA |
| $V_{GT\ QI-QIII}$ | 1.8V | 1.8V | 1.75V |
| $V_{GT\ QIV}$ | 1.8V | 1.8V | 1.75V |
| I_H | 5.0mA | 5.0mA | 5.0mA |
| PINOUT |  | |  |

* Available on request. Please consult factory.

TRIACS (continued)

4.0 to 25A
600 to 800V

Package dimensions shown are maximum values in mm.

| I_T (AMPS) | 4.0 | 8.0 | | 12 | | 16 | 25 |
|-------------------------|--|----------------|--|-----------|----------------|-----------|-----------|
| @ T_C (°C) * T_J | 80 | 25** | 90 | 90 | 25 | 90 | 90 |
| I_{TSM} (AMPS) | 40 | 70 | 90 | 125 | 100 | 170 | 210 |
| CASE |  10.73 x 6.81 x 2.75 DPAK | |  16.6 x 10.4 x 4.8 D ² PAK | | | | |
| V_{RRM} (VOLTS) | | THREE QUADRANT | | | THREE QUADRANT | | |
| 600 | CQD-4M | CQD-8M3 | CQDD-8M | CQDD-12M | CQDD-12M3 | CQDD-16M | CQDD-25M |
| 800 | CQD-4N* | – | CQDD-8N* | CQDD-12N* | – | CQDD-16N* | CQDD-25N* |
| $I_{GT\ QI}$ | 5.0mA | 50mA | 20mA | 20mA | 50mA | 25mA | 30mA |
| $I_{GT\ QII}$ | 5.0mA | 50mA | 20mA | 20mA | 50mA | 25mA | 30mA |
| $I_{GT\ QIII}$ | 5.0mA | 50mA | 20mA | 20mA | 50mA | 25mA | 30mA |
| $I_{GT\ QIV}$ | 9.0mA | – | 50mA | 50mA | – | 75mA | 60mA |
| $V_{GT\ QI-QIII}$ | 1.75V | 1.3V | 1.5V | 1.5V | 1.3V | 1.5V | 1.5V |
| $V_{GT\ QIV}$ | 1.75V | – | 2.5V | 2.5V | – | 2.5V | 2.5V |
| I_H | 5.0mA | 50mA | 25mA | 25mA | 50mA | 25mA | 50mA |
| PINOUT |  | |  | | | | |

* Available on request. Please consult factory.