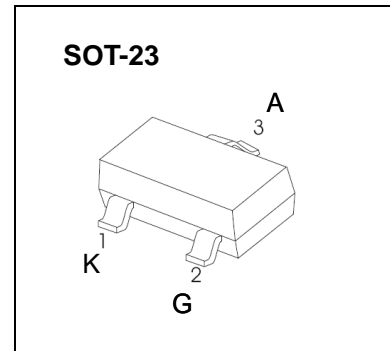


MCR100-8 Series 0.8A SENSITIVE SCRs

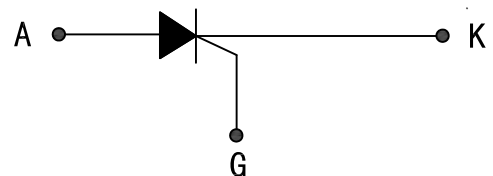
DESCRIPTION:

Highly sensitive triggering levels, the MCR100-8 Series SCRs is suitable for all applications, where the available gate current is limited, such as capacitive discharge ignitions, motor control in kitchen aids, overvoltage crowbar protection in low power supplies...



MAIN FEATURES

| Symbol | Value | Unit |
|-------------------|------------|---------|
| $I_{T(AV)}$ | 0.8 | A |
| V_{DRM}/V_{RRM} | 600 | V |
| I_{GT} | ≤ 200 | μA |



ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Value | Unit |
|--|---|--------------|-------------|
| Storage junction temperature range | T_{stg} | - 40 to +150 | $^{\circ}C$ |
| Operating junction temperature range | T_j | - 40 to +110 | $^{\circ}C$ |
| Repetitive Peak Off-state Voltage | $T_j=25^{\circ}C$ V_{DRM} | 600 | V |
| Repetitive Peak Reverse Voltage | $T_j=25^{\circ}C$ V_{RRM} | 600 | V |
| RMS on-state current (180 conduction angle) | $T_c=77^{\circ}C$ $I_{T(RMS)}$ | 0.8 | A |
| Average on-state current (180 conduction angle) | $T_c=77^{\circ}C$ $I_{T(AV)}$ | 0.5 | A |
| Non repetitive surge peak on-state current ($T_j=25^{\circ}C$) | $t_p=10ms$ I_{TSM} | 9 | A |
| | $t_p=8.3ms$ | 10 | A |
| I^2t Value for fusing | $t_p=10ms$ I^2t | 0.415 | A^2s |
| Peak gate current | $t_p=20\mu s, T_j=110^{\circ}C$ I_{GM} | 0.2 | A |
| Average gate power dissipation | $T_j=110^{\circ}C$ $P_{G(AV)}$ | 0.1 | W |

ELECTRICAL CHARACTERISTICS(T_j=25°C unless otherwise specified)

| Symbol | Test Condition | | MCR100-8 | | | Unit | |
|------------------|---|-----------------------|------------------------|------|------|------|------|
| | | | Min. | Typ. | Max. | | |
| I _{GT} | V _D =6V R _L =100Ω | | - | 40 | 200 | μA | |
| V _{GT} | | | - | 0.6 | 0.8 | V | |
| V _{GD} | V _D =V _{DRM} R _L =3.3KΩ R _{GK} =1KΩ T _j =110°C | | 0.2 | - | - | V | |
| I _L | I _G =1mA R _{GK} =1KΩ | | - | - | 6 | mA | |
| I _H | I _T =50mA R _{GK} =1KΩ | | - | - | 5 | mA | |
| V _{TM} | I _T = 1A t _p =380uS | T _j =25 °C | - | 1.3 | 1.7 | V | |
| dV/dt | V _D =67%V _{DRM} R _{GK} =1KΩ | | T _j =110 °C | 10 | - | - | V/μs |
| I _{DRM} | V _D = V _{DRM} R _{GK} =1KΩ | | T _j =25 °C | - | - | 5 | μA |
| | | | T _j =110 °C | - | - | 0.1 | mA |
| I _{RRM} | V _R = V _{RRM} R _{GK} =1KΩ | | T _j =25 °C | - | - | 5 | μA |
| | | | T _j =110 °C | - | - | 0.1 | mA |

THERMAL RESISTANCES

| Symbol | Parameter | | Value | Unit |
|-------------------------|------------------|--------|-------|------|
| R _{th} (J -C) | Junction to Case | SOT-23 | 75 | °C/W |

ORDERING INFORMATION

