

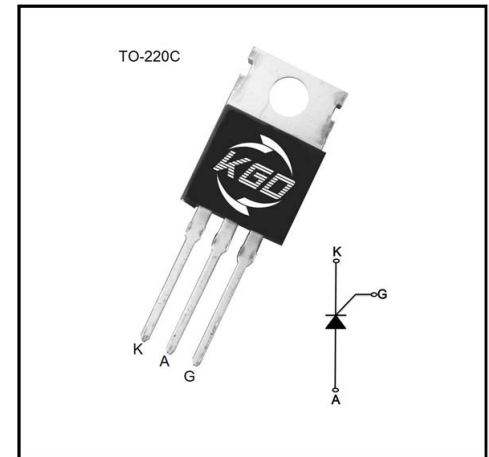
● **Description:**

Highly sensitive triggering levels, the MCR72-6 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...

● **Features:**

Blocking voltage to 600V
 On-state RMS current to 8A
 Non-repetitive peak on-state current to 90A

● **Absolute Maximum Ratings**



| Symbol | Parameter | Conditions | Value | Unit |
|--------------|---|---------------------------------|---------|-------------|
| V_{DRM} | Repetitive peak off-state voltage | $T_J=25^{\circ}C$ | 600 | V |
| V_{RRM} | Repetitive peak Reverse voltage | $T_J=25^{\circ}C$ | 600 | V |
| $I_{T(RMS)}$ | RMS on-state current (180° conduction half sine wave) | $T_c=80^{\circ}C$ | 8 | A |
| I_{TSM} | Non-repetitive surge peak On-state current($T_J=25^{\circ}C$) | $t_p=8.3ms$ | 90 | A |
| I^2t | I^2t Value for fusing | $t_p=8.3ms$ | 34 | A^2S |
| I_{GM} | Peak gate current | $t_p=20\mu s, T_J=110^{\circ}C$ | 2.0 | A |
| $P_{G(AV)}$ | Average gate power dissipation | | 0.5 | W |
| T_{STG} | Storage temperature | | -40 150 | $^{\circ}C$ |
| T_J | Junction temperature | | -40 125 | $^{\circ}C$ |

● Electrical Characteristics

| Symbol | Conditions | Value | | | Unit |
|----------|---|-------|-----|-----|-----------|
| | | MIN | TYP | MAX | |
| I_{GT} | $V_D=12V, R_L=100\Omega$ | 5.0 | 25 | 200 | μA |
| V_{GT} | | 0.3 | 0.6 | 1.0 | V |
| V_{GD} | $V_D=V_{DRM}, R_L=3.3K\Omega, R_{GK}=1K\Omega, T_J=110^\circ C$ | 0.2 | / | 1.8 | V |
| I_L | $I_G=0.2mA, R_{GK}=1K\Omega$ | / | 0.6 | 8.0 | mA |
| I_H | $I_T=200mA, R_{GK}=1K\Omega$ | 0.5 | 1.0 | 6.0 | mA |
| dv/dt | $V_{DM}=67\%V_{DRM}, R_{GK}=1K\Omega, T_J=110^\circ C$ | 2.0 | 10 | / | $V/\mu s$ |

● Electrical Characteristics

| Symbol | Parameter | Numerical | Unit |
|-----------|--|-----------|---------|
| V_{TM} | $I_T=16A, t_p=380\mu s$ $T_J=25^\circ C$ | 1.7 | V |
| I_{DRM} | $V_D=V_{DRM}, V_R=V_{RRM}$ $T_J=25^\circ C$ | 10 | μA |
| I_{RRM} | $T_J=125^\circ C$ | 0.5 | mA |

● Thermal Characteristics

| Symbol | Parameter | Numerical(MAX) | Unit |
|---------------|--|----------------|--------------|
| $R_{th(j-c)}$ | Junction to case(AC) | 2.2 | $^\circ C/W$ |
| $R_{th(j-a)}$ | Junction to ambient(AC) | 62.5 | $^\circ C/W$ |
| T_L | Lead Solder Temperature(<1/16" from case, 10 secs max) | 260 | $^\circ C$ |