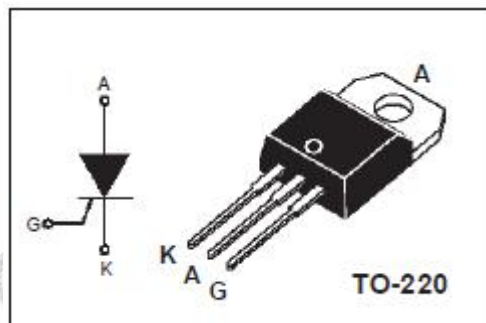


isc Thyristors
BT152-800R
APPLICATIONS

- It is suitable to fit all modes of control found in applications such as overvoltage crowbar protection, motor control circuits in power tools and kitchen aids, in-rush current limiting circuits, capacitive discharge ignition, voltage regulation circuits etc.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

| SYMBOL | PARAMETER | MIN | UNIT |
|---------------------|---------------------------------------|---------|------|
| V _{DRM} | Repetitive peak off-state voltage | 800 | V |
| V _{RRM} | Repetitive peak reverse voltage | 800 | V |
| I _{T(AV)} | Average on-state current | 13 | A |
| I _{T(RMS)} | RMS on-state current | 20 | A |
| I _{TSM} | Surge non-repetitive on-state current | 200 | A |
| P _{G(AV)} | Average gate power dissipation | 0.5 | W |
| T _j | Operating junction temperature | -40~125 | °C |
| T _{stg} | Storage temperature | -40~150 | °C |

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|----------------------|-----------------------------------|--|-----------------------|------|------|
| I _{RRM} | Repetitive peak reverse current | V _{RM} =V _{RRM} , R _{GK} = 220 Ω, | T _j =25°C | 5 | μA |
| | | | T _j =125°C | 2 | mA |
| I _{DRM} | Repetitive peak off-state current | V _{DM} =V _{DRM} , R _{GK} = 220 Ω | T _j =25°C | 5 | μA |
| | | | T _j =125°C | 2 | mA |
| V _{TM} | On-state voltage | I _{TM} = 40A | | 1.75 | V |
| I _{GT} | Gate-trigger current | V _D = 12 V; I _T = 0.1 A | | 32 | mA |
| V _{GT} | Gate-trigger voltage | V _D = 12 V; I _T = 0.1 A | | 1.5 | V |
| R _{th(j-c)} | Thermal resistance | Junction to case | | 1.3 | °C/W |