

Typical Applications

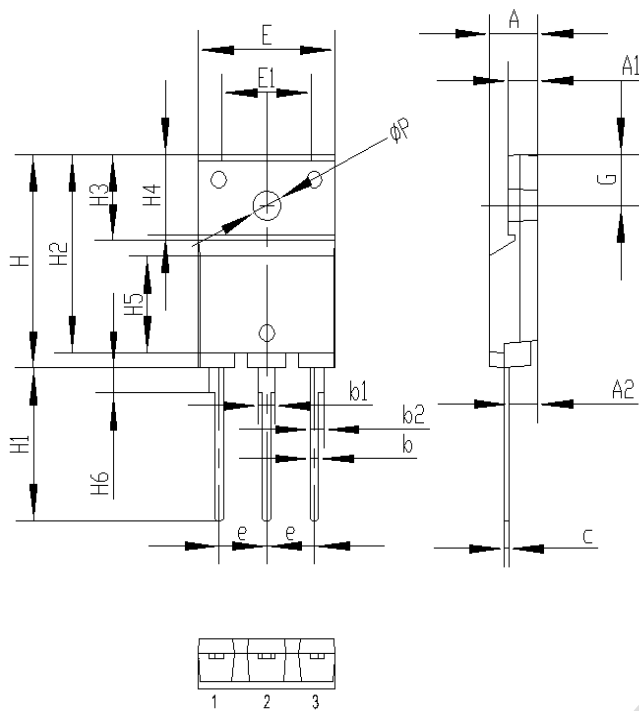
- n High power industrial and power transmissior
- n DC and AC motor control
- n AC controllers

Features

- n Thyristor for line frequency
- n Planar passivated chip
- n Long-term stability

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | T _j (°C) | VALUE | | | UNIT |
|--------------------------------------|--|--|---------------------|-------|------|------|------------------|
| | | | | Min | Type | Max | |
| I _{T(RMS)} | RMS on-state current | 180° half sine wave 50Hz | 125 | | | 80 | A |
| V _{DRM} V _{RRM} | Repetitive peak off-state voltage Repetitive peak reverse voltage | V _{DRM} &V _{RRM} , tp=10ms | 125 | | | 1600 | V |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} at V _{RRM} | 125 | | | 10 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 500 | A |
| I ² t | I ² t for fusing coordination | | | | | 1250 | A ² s |
| V _{TM} | Peak on-state voltage | I _{TM} =160A, tp=380µs | 25 | | | 2.10 | V |
| dv/dt | Critical rate of rise of off-state voltage | V _{DM} =0.67V _{DRM} | 125 | | | 1000 | V/µs |
| di/dt | Critical rate of rise of on-state current | | 125 | | | 150 | A/µs |
| I _L | Latching current | I _G =1.2 I _{GT} | 25 | | | 250 | mA |
| I _{GT} | Gate trigger current | V _A =12V, I _A =1A | 25 | 20 | | 70 | mA |
| V _{GT} | Gate trigger voltage | | | | | 1.5 | V |
| I _H | Holding current | | | | | 200 | mA |
| V _{GD} | Non-trigger gate voltage | V _D =12V | 125 | 0.25 | | | V |
| R _{th(j-c)} | Thermal resistance Junction to case | | | | | 0.25 | °C/W |
| T _j | Junction temperature | | | -40 | | 125 | °C |
| T _{stg} | Stored temperature | | | -40 | | 150 | °C |
| Outline | TO-3PF | | | | | | |

Outline:



| Symbol | Dimensions(millimeters) | |
|--------|-------------------------|-------|
| | Min. | Max. |
| A | 5.30 | 5.70 |
| A1 | 3.25 | 3.65 |
| A2 | 3.15 | 3.55 |
| b | 0.80 | 1.20 |
| b1 | 1.85 | 2.15 |
| b2 | 1.45 | 1.75 |
| c | 0.40 | 0.80 |
| e | 5.25 | 5.65 |
| E | 15.4 | 15.8 |
| E1 | 10.0 | 10.4 |
| H | 22.5 | 23.2 |
| H1 | 16.0 | 17.0 |
| H2 | 21.2 | 21.6 |
| H3 | 9.10 | 9.50 |
| H4 | 8.55 | 8.95 |
| H5 | 10.20 | 10.60 |
| H6 | 2.55 | 2.85 |
| G | 5.30 | 5.70 |
| ΦP | 3.00 | 3.40 |