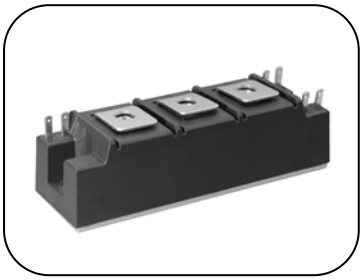


**Features：**

- Non-isolated. Mounting base as anode or csthode terminal
- Pressure contact technology with Increased power cycling capability
- Low on-state voltage drop

**Typical Applications:**

- Welding Power Supply
- Various DC Power supplies
- DC supply for PWM inverter

| $V_{RRM}$,$V_{DRM}$ | Type & Outline | |
|---|---|---|
| 800V | MTx150-08-213F4 | MFx150-08-213F4 |
| 1000V | MTx150-10-213F4 | MFx150-10-213F4 |
| 1200V | MTx150-12-213F4 | MFx150-12-213F4 |
| 1400V | MTx150-14-213F4 | MFx150-14-213F4 |
| 1600V | MTx150-16-213F4 | MFx150-16-213F4 |
| 1800V | MTx150-18-213F4 | MFx150-18-213F4 |

MTx stands for any type of **MTG, MTY**
MFx stands for any type of **MFG, MFY**

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | $T_j$(°C) | VALUE | | | UNIT |
|---|---|---|---|---|---|---|---|
| | | | | Min | Type | Max | |
| $I_{T(AV)}$ | Mean on-state current | 180° half sine wave 50Hz Single side cooled, $T_C$=90°C | 125 | | | 150 | A |
| $I_{T(RMS)}$ | RMS on-state current | | | | | 236 | A |
| $I_{DRM}$ $I_{RRM}$ | Repetitive peak current | at $V_{DRM}$ at $V_{RRM}$ | 125 | | | 12 | mA |
| $I_{TSM}$ | Surge on-state current | $V_R$=60%$V_{RRM}$, t=10ms half sine | 125 | | | 3.9 | kA |
| $I^2t$ | $I^2t$ for fusing coordination | | 125 | | | 76 | $10^3A^2s$ |
| $V_{TO}$ | Threshold voltage | | 125 | | | 0.80 | V |
| $r_T$ | On-state slope resistance | | | | | 1.74 | mΩ |
| $V_{TM}$ | Peak on-state voltage | $I_{TM}$=450A | 25 | | | 1.67 | V |
| dv/dt | Critical rate of rise of off-state voltage | $V_{DM}$=67%$V_{DRM}$ | 125 | | | 800 | V/μs |
| di/dt | Critical rate of rise of on-state current | Gate source 1.5A $t_r$ ≤0.5μs Repetitive | 125 | | | 100 | A/μs |
| $I_{GT}$ | Gate trigger current | $V_A$=12V, $I_A$=1A | 25 | 30 | | 100 | mA |
| $V_{GT}$ | Gate trigger voltage | | | 0.8 | | 2.5 | V |
| $I_H$ | Holding current | | | 10 | | 180 | mA |
| $I_L$ | Latching current | | | | | 1000 | mA |
| $V_{GD}$ | Non-trigger gate voltage | $V_{DM}$=67%$V_{DRM}$ | 125 | | | 0.20 | V |
| $R_{th(j-c)}$ | Thermal resistance Junction to case | At 180° sine, Single side cooled per chip | | | | 0.16 | °C/W |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | At 180° sine, Single side cooled per chip | | | | 0.10 | °C/W |
| $F_m$ | Terminal connection torque(M6) | | | 4.5 | | 6.0 | N·m |
| | Mounting torque(M6) | | | 4.5 | | 6.0 | N·m |
| $T_{vj}$ | Junction temperature | | | -40 | | 125 | °C |
| $T_{stg}$ | Stored temperature | | | -40 | | 125 | °C |
| $W_t$ | Weight | | | | 280 | | g |
| Outline | 213F4 | | | | | | |

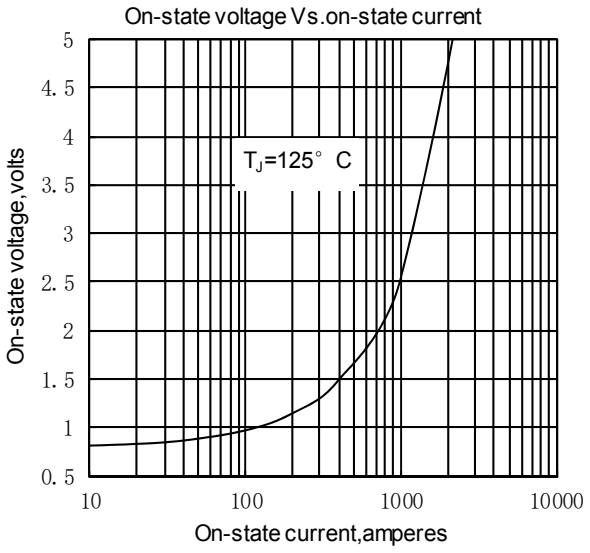



Fig.1

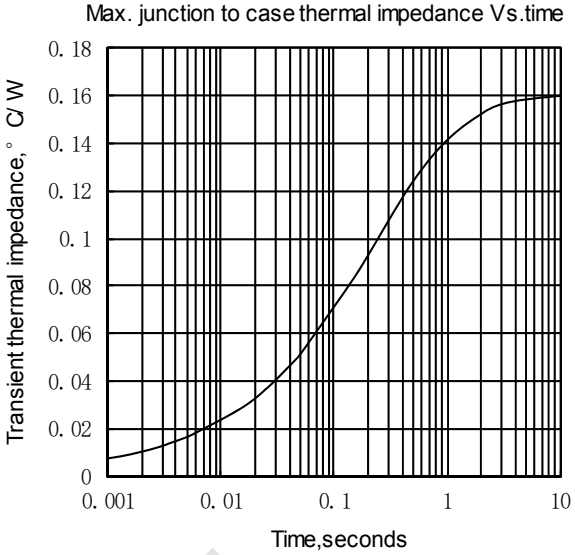



Fig.2

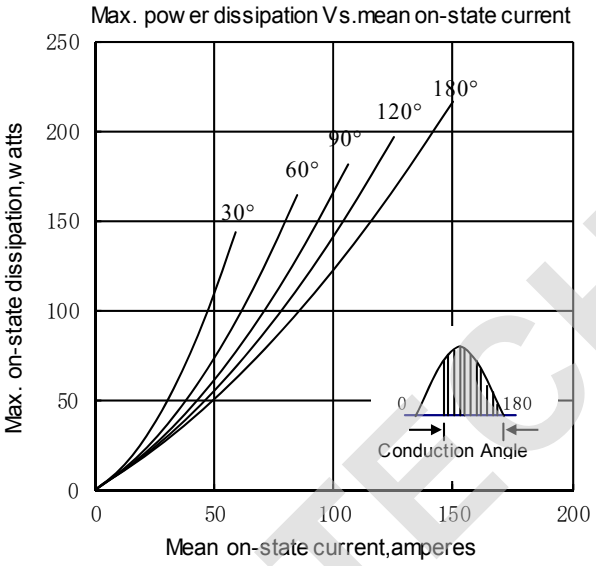



Fig.3

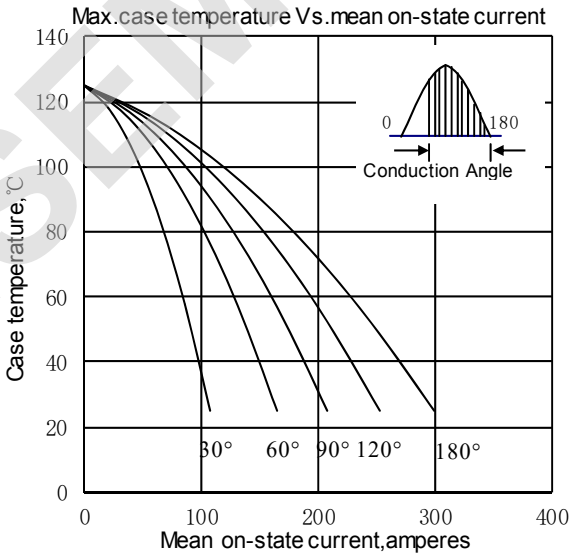



Fig.4

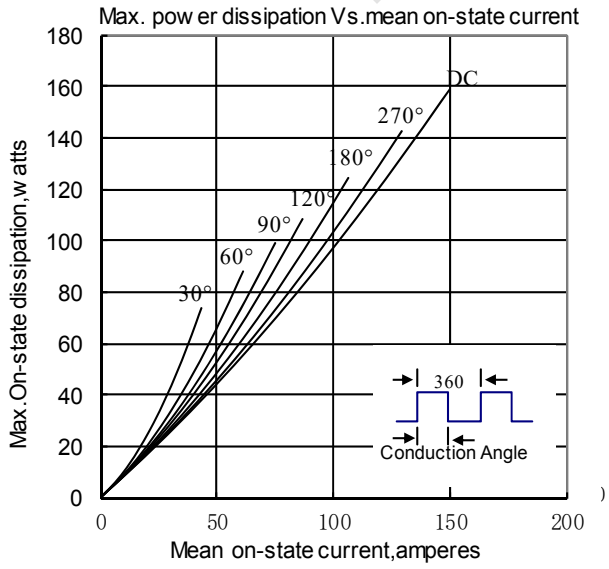



Fig.5

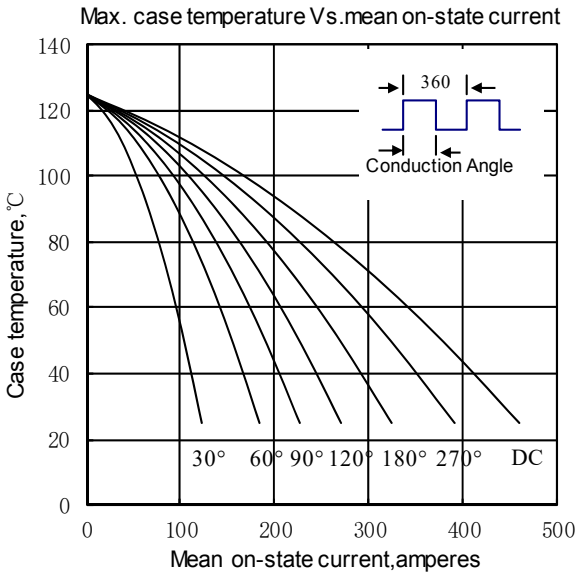



Fig.6

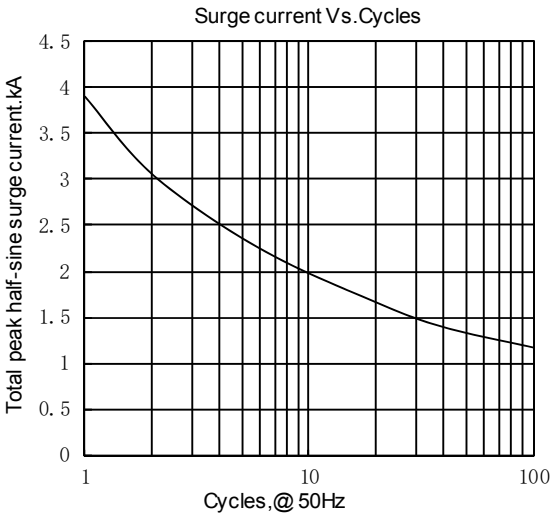



Fig.7

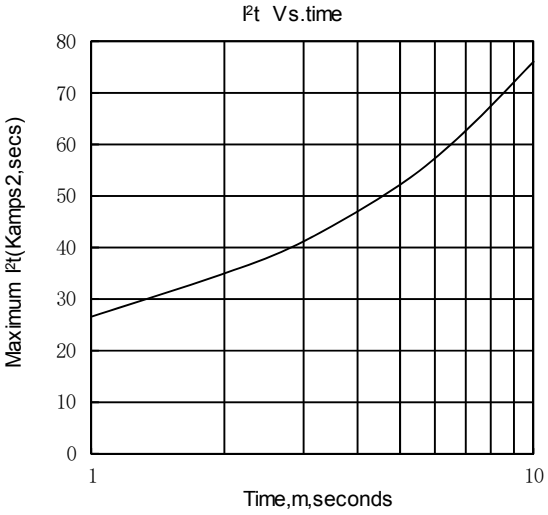



Fig.8

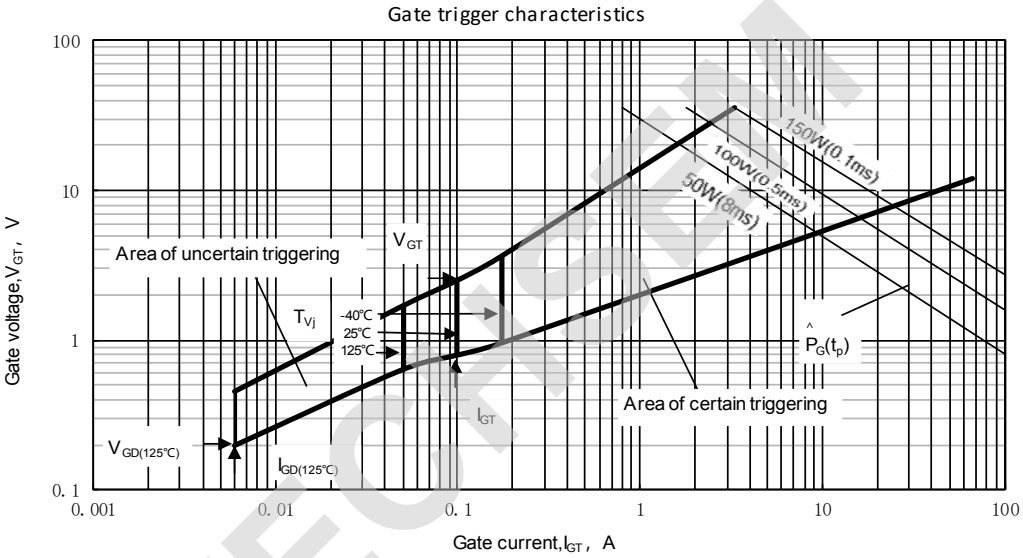
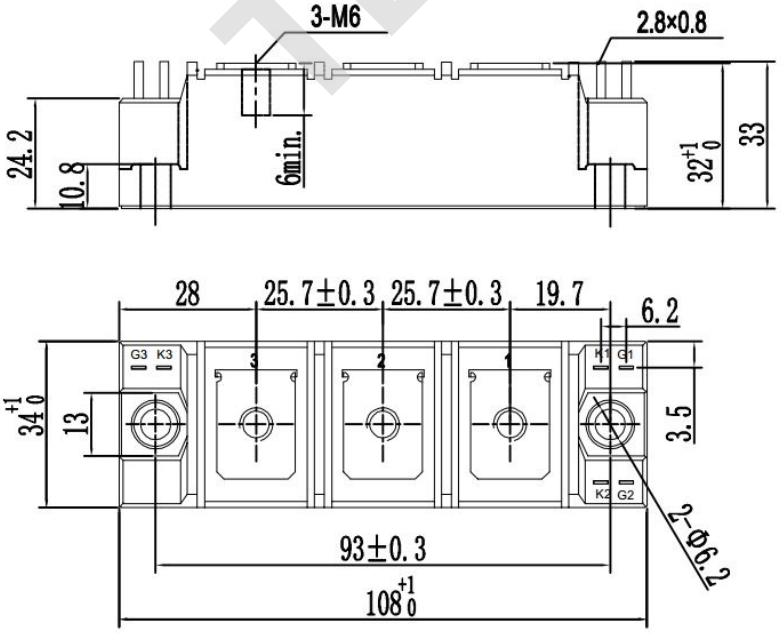
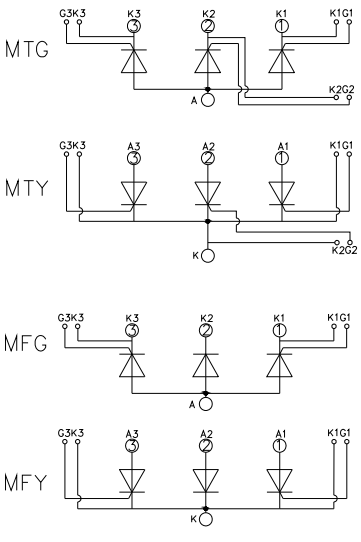



Fig.9

**Outline:**




**Unmarked dimensional tolerance：±0.5mm**

TECHSEM reserves the right to change specifications without notice.