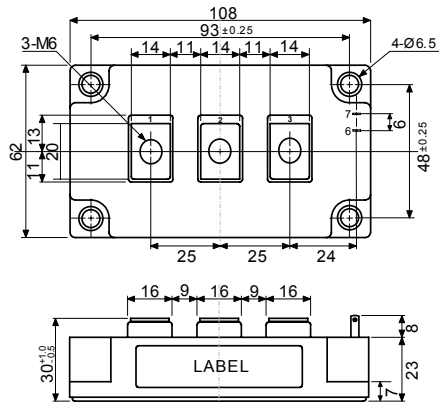
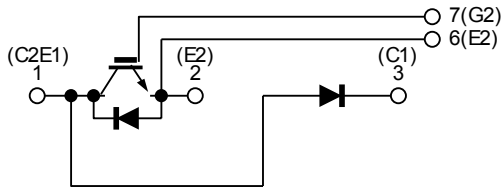


□ 回路図 : *CIRCUIT*

□ 外形寸法図 : *OUTLINE DRAWING*



Dimension: [mm]

□ 最大定格 : *MAXIMUM RATINGS* ($T_c = 25^\circ\text{C}$)

| Item | Symbol | Rated Value | Unit |
|---|-------------------------|-----------------|------------------|
| コレクタ・エミッタ間電圧 Collector-Emmitter Voltage | V_{CES} | 1,200 | V |
| ゲート・エミッタ間電圧 Gate-Emmitter Voltage | V_{GES} | ± 20 | V |
| コレクタ電流 Collector Current | DC | 400 | A |
| | 1ms | 800 | |
| コレクタ損失 Collector Power Dissipation | P_C | 1,900 | W |
| 接合温度 Junction Temperature Range | T_j | $-40 \sim +150$ | $^\circ\text{C}$ |
| 保存温度 Storage Temperature Range | T_{stg} | $-40 \sim +125$ | $^\circ\text{C}$ |
| 絶縁耐圧(Terminal to Base AC, 1minute) Isolation Voltage | V_{ISO} | 2,500 | $V_{(RMS)}$ |
| 締め付けトルク Mounting Torque | Module Base to Heatsink | 3 (30.6) | N·m (kgf·cm) |
| | Busbar to Main Terminal | | |

□ 電気的特性 : *ELECTRICAL CHARACTERISTICS* ($T_c = 25^\circ\text{C}$)

| Characteristic | Symbol | Test Condition | Min. | Tvp. | Max. | Unit |
|---|-----------------------|--|------|--------|------|---------------|
| コレクタ遮断電流 Collector-Emmitter Cut-Off Current | I_{CES} | $V_{CE} = 1200V, V_{GE} = 0V$ | - | - | 8.0 | mA |
| ゲート漏れ電流 Gate-Emmitter Leakage Current | I_{GES} | $V_{GE} = \pm 20V, V_{CE} = 0V$ | - | - | 1.0 | μA |
| コレクタ・エミッタ間飽和電圧 Collector-Emmitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 400A, V_{GE} = 15V$ | - | 1.9 | 2.4 | V |
| ゲートしきい値電圧 Gate-Emmitter Threshold Voltage | $V_{GE(th)}$ | $V_{CE} = 5V, I_C = 400mA$ | 4.0 | - | 8.0 | V |
| 入力容量 Input Capacitance | C_{ies} | $V_{CE} = 10V, V_{GE} = 0V, f = 1MHz$ | - | 25,000 | - | pF |
| スイッチング時間 Switching Time | 上昇時間 Rise Time | $V_{CC} = 600V$ $R_G = 1.5\Omega$ $V_{GE} = \pm 15V$ | - | 0.25 | 0.45 | μs |
| | ターンオン時間 Turn-on Time | | - | 0.40 | 0.70 | |
| | 下降時間 Fall Time | | - | 0.25 | 0.35 | |
| | ターンオフ時間 Turn-off Time | | - | 0.80 | 1.10 | |

□ フリーホイーリングダイオードの特性 : *FREE WHEELING DIODE RATINGS & CHARACTERISTICS* ($T_c = 25^\circ\text{C}$)

| Item | Symbol | Rated Value | Unit |
|------------------------|--------|-------------|------|
| 順電流 Forward Current | DC | 400 | A |
| | 1ms | 800 | |

| Characteristic | Symbol | Test Condition | Min. | Tvp. | Max. | Unit |
|--------------------------------|----------|---|------|------|------|---------------|
| 順電圧 Peak Forward Voltage | V_F | $I_F = 400A, V_{GE} = 0V$ | - | 1.9 | 2.4 | V |
| 逆回復時間 Reverse Recovery Time | t_{rr} | $I_F = 400A, V_{GE} = -10V$ $di/dt = 800A/\mu\text{s}$ | - | 0.2 | 0.3 | μs |

□ 熱的特性 : *THERMAL CHARACTERISTICS*

| Characteristic | Symbol | Test Condition | Min. | Tvp. | Max. | Unit |
|--------------------------|--------|------------------|------|------|-------|---------------------------|
| 熱抵抗 Thermal Impedance | IGBT | Junction to Case | - | - | 0.065 | $^\circ\text{C}/\text{W}$ |
| | Diode | | - | - | 0.12 | |

