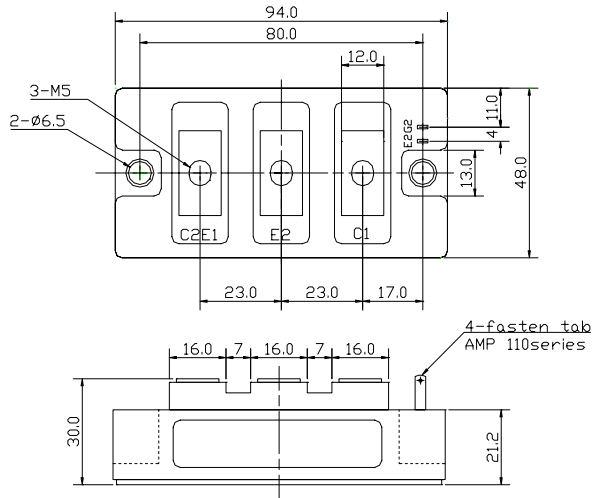
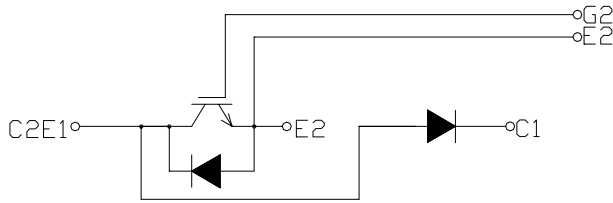


回路図 : *CIRCUIT*

 外形寸法図 : *OUTLINE DRAWING*

Dimension: [mm]


最大定格 : MAXIMUM RATINGS ($T_c = 25$)

重量 : 320 g

| Item | Symbol | Rated Value | Unit |
|--|-------------------------|-------------|----------|
| コレクタ・エミッタ間電圧 Collector-Emmitter Voltage | V_{CES} | 600 | 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 | I_C | 200 |
| | 1 ms | I_{CP} | 400 |
| コレクタ損失 Collector Power Dissipation | P_C | 780 | W |
| 接合温度 Junction Temperature Range | T_j | -40 ~ +150 | |
| 保存温度 Storage Temperature Range | T_{stg} | -40 ~ +125 | |
| 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 | F_{tor} | 3 (30.6) |
| | Busbar to Main Terminal | | 2 (20.4) |

電気的特性 : ELECTRICAL CHARACTERISTICS ($T_c = 25$)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---|-----------------------|---|------|--------|------|---------|
| コレクタ遮断電流 Collector-Emmitter Cut-Off Current | I_{CES} | $V_{CE} = 600V, V_{GE} = 0V$ | - | - | 2.0 | 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 | $V_{CE(sat)}$ | $I_C = 200A, V_{GE} = 15V$ | - | 2.1 | 2.6 | V |
| ゲートしきい値電圧 Gate-Emmitter Threshold Voltage | $V_{GE(th)}$ | $V_{CE} = 5V, I_C = 200mA$ | 4.0 | - | 8.0 | V |
| 入力容量 Input Capacitance | C_{ies} | $V_{CES} = 10V, V_{GE} = 0V, f = 1MHz$ | - | 20,000 | - | pF |
| スイッチング時間 Switching Time | 上昇時間 Rise Time | $V_{CC} = 300V$ $R_L = 3\Omega$ $R_G = 3.6\Omega$ $V_{GE} = \pm 15V$ | - | 0.15 | 0.30 | μs |
| | ターンオン時間 Turn-on Time | | - | 0.25 | 0.40 | |
| | 下降時間 Fall Time | | - | 0.20 | 0.35 | |
| | ターンオフ時間 Turn-off Time | | - | 0.45 | 0.70 | |

フリーホイーリングダイオードの特性 : FREE WHEELING DIODE RATINGS & CHARACTERISTICS ($T_c = 25$)

| Item | Symbol | Rated Value | Unit |
|------------------------|--------|-------------|------|
| 順電流 Forward Current | DC | I_F | 200 |
| | 1 ms | I_{FM} | 400 |

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------------|----------|---|------|------|------|---------|
| 順電圧 Peak Forward Voltage | V_F | $I_F = 200A, V_{GE} = 0V$ | - | 1.9 | 2.4 | V |
| 逆回復時間 Reverse Recovery Time | t_{rr} | $I_F = 200A, V_{GE} = -10V$ $di/dt = 200A/\mu s$ | - | 0.15 | 0.25 | μs |

熱的特性 : THERMAL CHARACTERISTICS

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|----------------|---------------|------------------|------|------|------|------|
| 熱抵抗 IGBT | $R_{th(j-c)}$ | Junction to Case | - | - | 0.16 | /W |

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Fig.1- Output Characteristics (Typical)

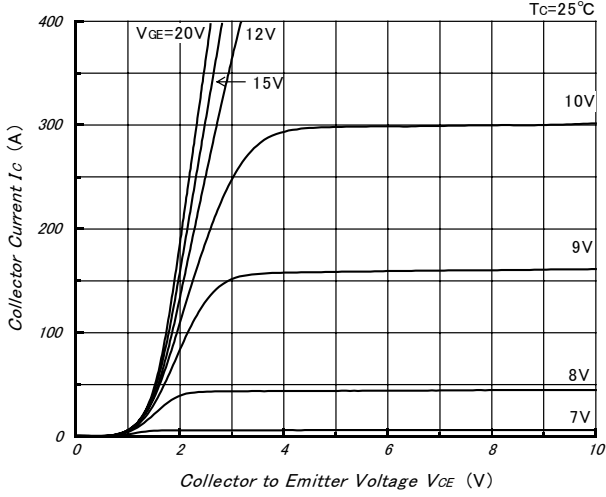


Fig.2- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

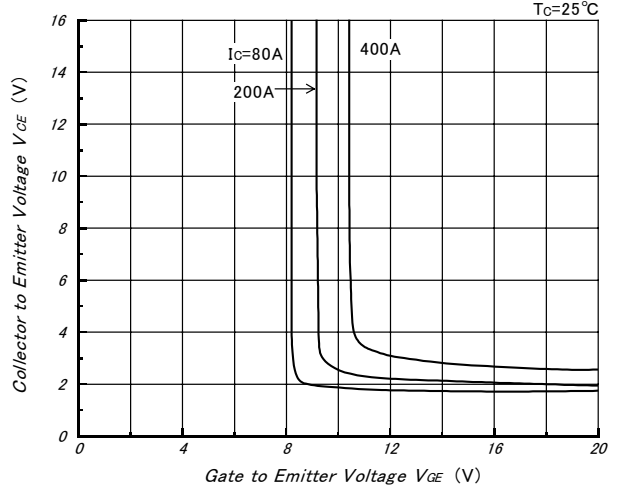


Fig.3- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

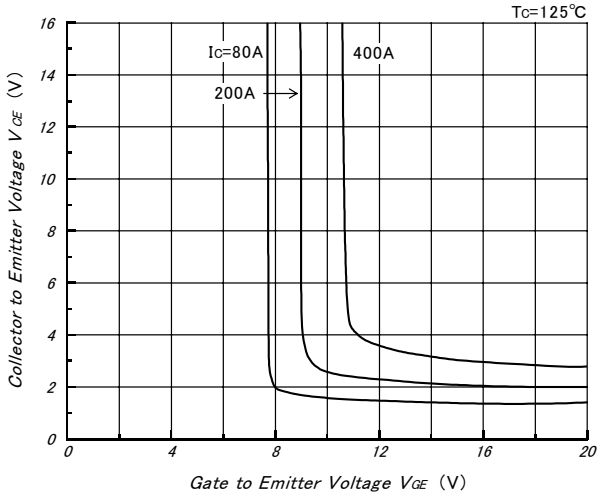


Fig.4- Gate Charge vs. Collector to Emitter Voltage (Typical)

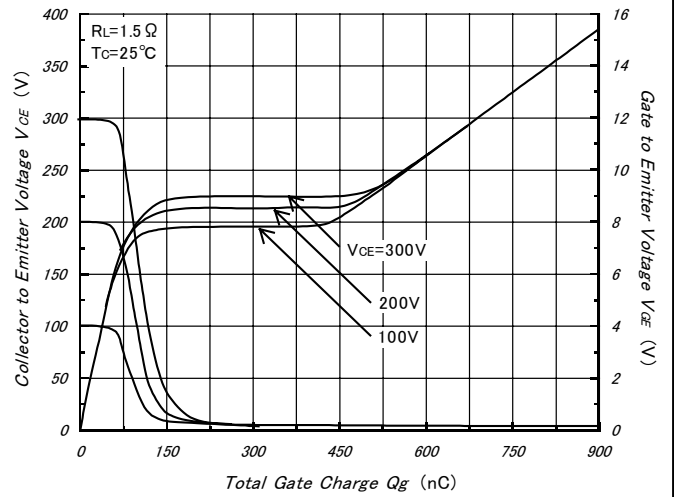


Fig.5- Capacitance vs. Collector to Emitter Voltage (Typical)

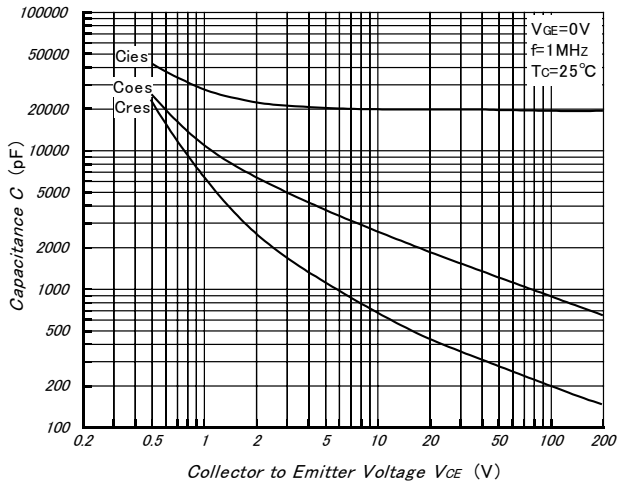
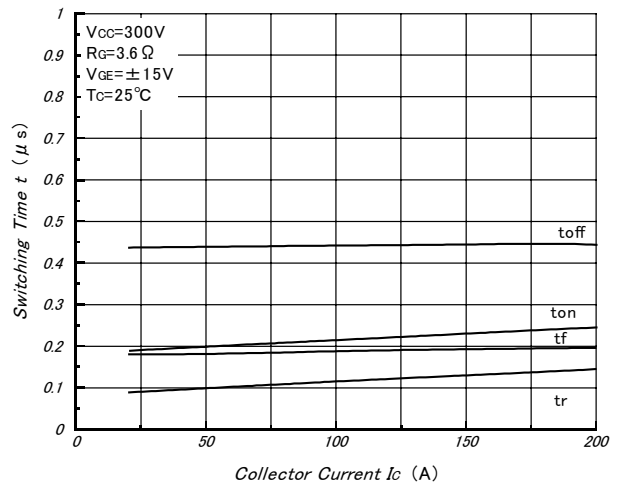


Fig.6- Collector Current vs. Switching Time (Typical)



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Fig.7- Series Gate Impedance vs. Switching Time (Typical)

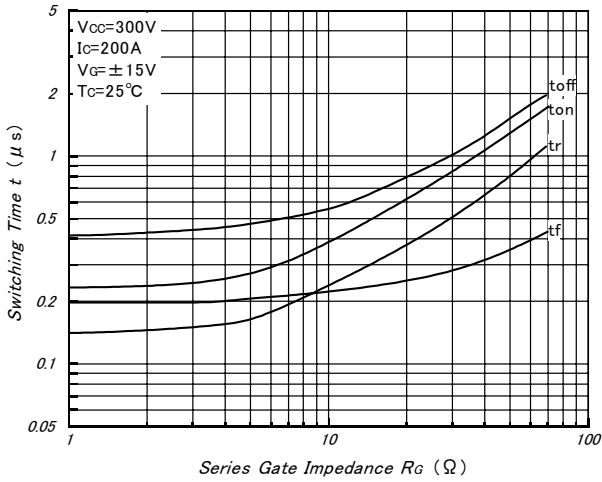


Fig.8- Forward Characteristics of Free Wheeling Diode (Typical)

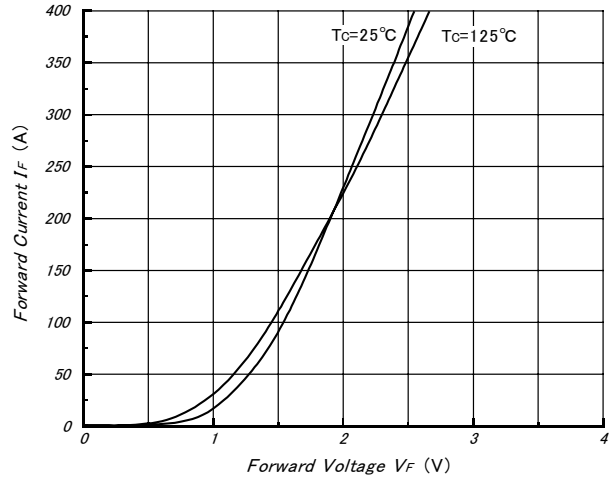


Fig.9- Reverse Recovery Characteristics (Typical)

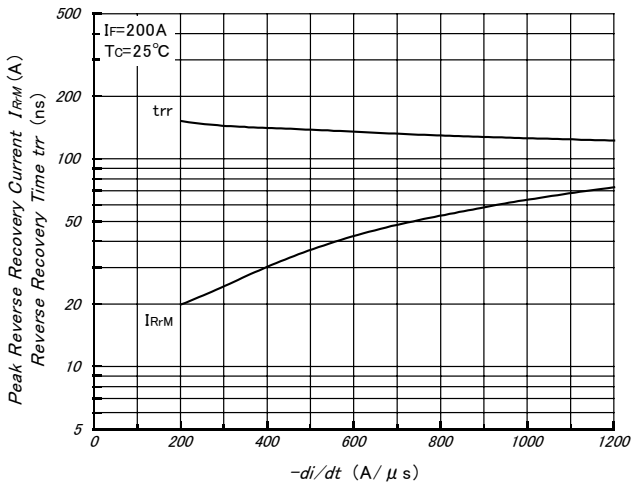


Fig.10- Reverse Bias Safe Operating Area (Typical)

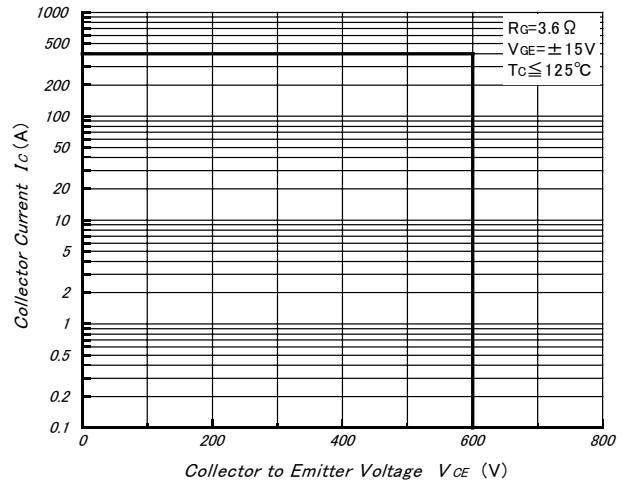


Fig.11- Transient Thermal Impedance

