



ELECTRICAL CHARACTERISTICS: OM300L60CMD (Tc= 25°C unless otherwise specified)

| Characteristic | Symbol | Min. | Typ. | Max | Unit |
|----------------|--------|------|------|-----|------|
|----------------|--------|------|------|-----|------|

OFF CHARACTERISTICS

| | | | | | |
|---|------|-----|----|---|----|
| Collector Emitter Breakdown Voltage, VCE=0V | VCES | 600 | | | V |
| Zero Gate Voltage Drain Current, VGE=0, VCE =600V | ICES | | 25 | | μA |
| Gate Emitter Leakage Current, VGE=±15V, VCE=0V | IGES | | | 2 | μA |

ON CHARACTERISTICS

| | | | | | |
|--|----------|-----|-----|-----|---|
| Gate Threshold Voltage, VCE=VGE, IC=6mA | VGE(TH) | 4.5 | | 6.5 | V |
| Collector Emitter Saturation Voltage, VGE=15V, IC=300A | VCE(SAT) | | 2.4 | 2.7 | V |

DYNAMIC CHARACTERISTICS

| | | | | | |
|---------------------------|-----------------|------|--|-------|----|
| Fwd. Transconductance | VCE=5V, IC=300A | gfs | | 42 | S |
| Input Capacitance | VGE=0 | Cies | | 14000 | pF |
| Output Capacitance | VCE=25V | Coes | | 9500 | pF |
| Rev. Transfer Capacitance | f=1.0MHz | Cres | | 1120 | pF |

SWITCHING INDUCTIVE LOAD CHARACTERISTICS

| | | | | | | |
|---------------------|--|---------|--|-----|------|----|
| Turn-On Delay Time | VCC= 300V, IC=300A VGE=+15/-10V, RG=6.8Ω L=100μH, Tj=125°C | t(on) | | 800 | 1600 | nS |
| Rise Time | | tr | | 400 | 800 | nS |
| Turn-on Losses | | Eon | | | | mJ |
| Turn-off Delay Time | | td(off) | | 800 | 1200 | nS |
| Fall Time | | tf | | 350 | 800 | nS |
| Turn-off Losses | | Eoff | | | | mJ |

DIODE CHARACTERISTICS

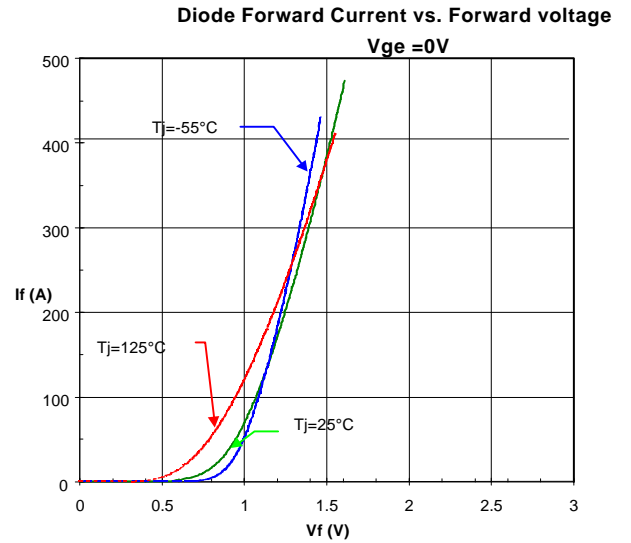
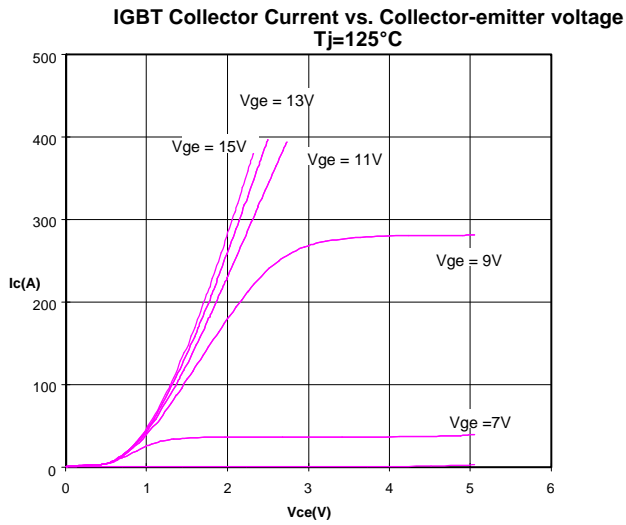
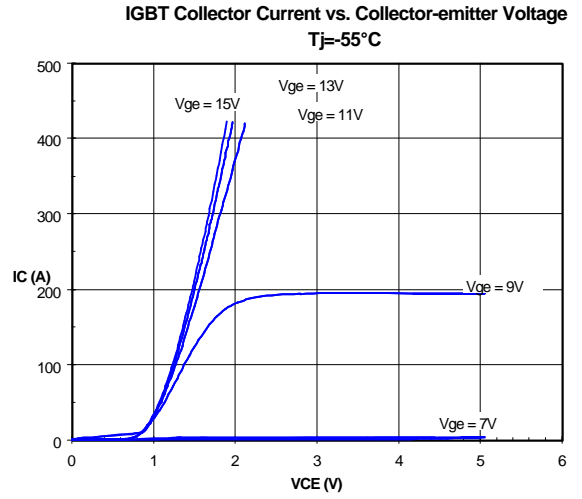
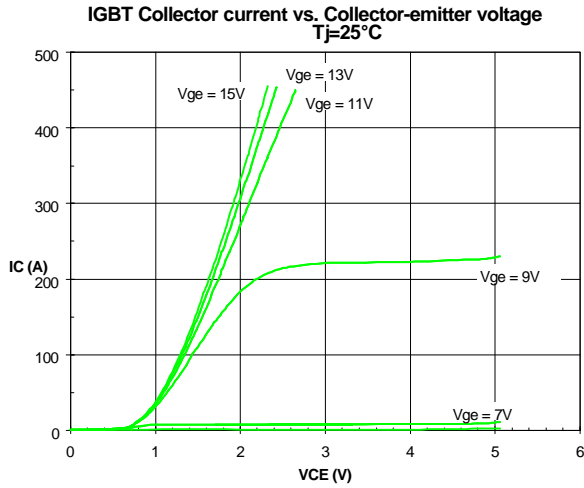
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|----------------------------------|---|-----|--|-----|-----|----|----|
| Maximum Forward Voltage | IF=300A, Tj=25°C Tj=125°C | VF | | 1.5 | 2.0 | V | |
| Reverse Recovery Characteristics | VR=300V, Tj=25°C IF=300A, Tj=125°C di/dt=-1500A/μS Tj=25°C Tj=125°C Tj=25°C Tj=125°C | Qrr | | 8 | | μC | |
| | | Irr | | 50 | | A | |
| | | trr | | | 80 | | |
| | | | | | 160 | | nS |
| | | | | 220 | | | |

THERMAL CHARACTERISTICS

| | | | | | | |
|--|-----------|---|--|------|------|-------|
| Thermal Resistance, Junction to Case (Per IGBT) | RthJC | | | 0.11 | °C/W | |
| Thermal Resistance, Junction to Case (Per Diode) | RthJC | | | 0.14 | °C/W | |
| Maximum Junction Temperature | TjMAX | | | 150 | °C | |
| Isolation Voltage | ViSRMS | | | 2500 | V | |
| Screw Torque | Mounting | - | | 15 | 20 | in-lb |
| Screw Torque (M6) | Terminals | - | | 10 | 12 | in-lb |
| Screw Torque (M3) | Terminals | - | | 6 | 8 | in-lb |
| Module Weight | | - | | | 400 | Grams |

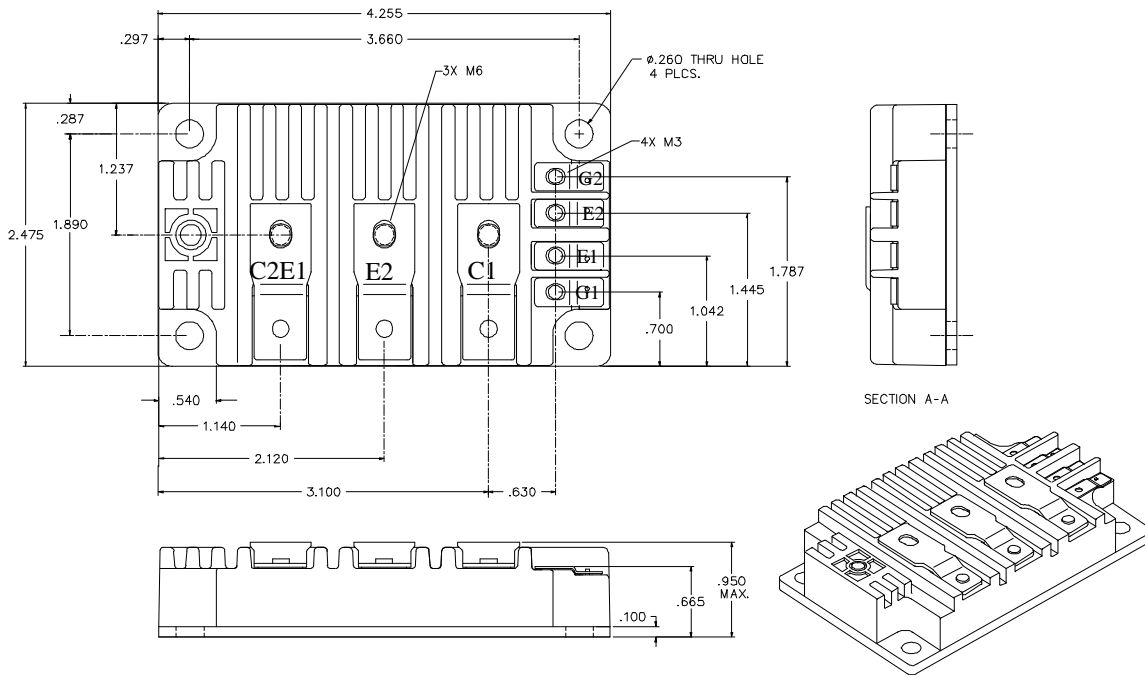


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MECHANICAL OUTLINE



EQUIVALENT CIRCUIT

