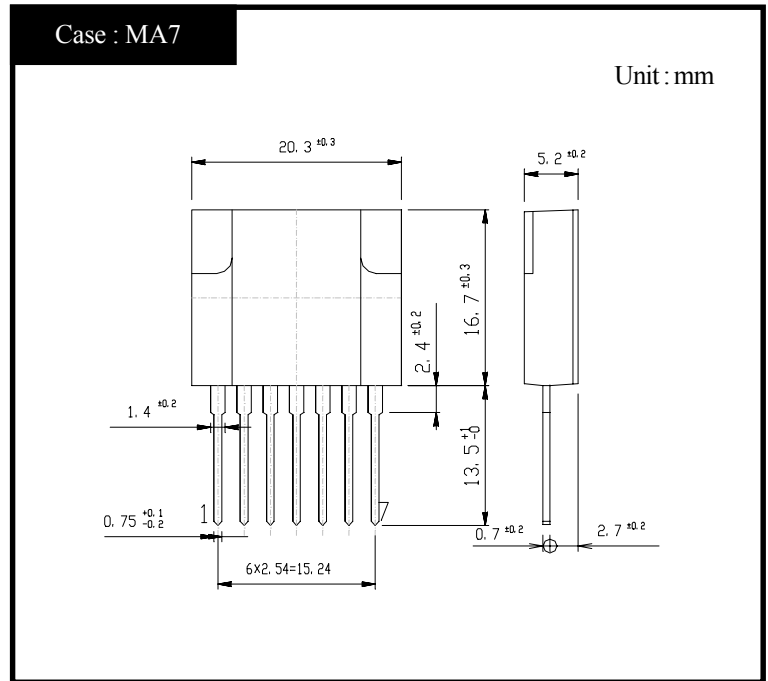


MA2410

OUTLINE DIMENSIONS



RATINGS

●Absolute Maximum Ratings

| Item | Symbol | Conditions | Ratings | | Unit |
|-----------------------------|------------------------|--|---------|---------|------|
| | | | P Class | N Class | |
| Storage Temperature | T _{stg} | | -30~125 | -30~125 | °C |
| Operating Temperature | T _{op} | Case Temperature | -20~125 | -20~125 | °C |
| Junction Temperature | T _j | | 150 | 150 | °C |
| Peak Input Voltage | V _{in} | ②+,④-,Fig.1 is Measurement Circuit of Peak Input Voltage V _{in} and Collector Cutoff Current I _{CEX} . | 500 | 500 | V |
| Input Current | I _{in} | Pulse Pulse Width 150 μs MAX, Duty 1/2, Sawtooth Wave, Peak Value, ②+,④- | 6 | 6 | A |
| Maximum Operating Frequency | f(max) | | 200 | 200 | kHz |
| Maximum Power Dissipation | P _D | T _a =25°C | 3 | 3 | W |
| | | Heatsink T _c =100°C | 12 | 12 | W |
| Dielectric Strength | V _{dis} | Terminals To Case AC 1 min | 2 | 2 | kV |
| Insulation Resistance | | Terminals To Case 500VDC | 100 | 100 | MΩ |
| Fold Back Control Voltage | V _{CONT(max)} | Fold Control Resistance=0Ω Duty 1/2, ④,⑦ | ±8 | ±8 | V |
| Fold Back Control Current | I _{CONT(max)} | ④-,⑥+ | 100 | 100 | mA |

●Electrical Characteristics (T_c=25°C)

| Item | Symbol | Conditions | Ratings | | Unit |
|----------------------------|---|---|---|---------|------|
| | | | P Class | N Class | |
| Q1 | Collector Cutoff Current | I _{CEX} | V _{CE} =500V, Fig.1 is Measurement Circuit of Peak Input Voltage V _{in} and Collector Cutoff Current I _{CEX} . | | mA |
| | DC Current Gain | h _{FE} | V _{CE} = 5V, I _C = 1.5A, ②+,④-,⑤I _B | | |
| | Collector to Emitter Saturation Voltage | V _{CE(sat)} | I _C =1.5A, I _B =0.3A, ②+,④-,⑤I _B | | V |
| | Thermal Resistance | θ _{jc} | Junction to Case | | °C/W |
| D1 | Reverse Current | I _R | V _R =450V,①+,②- | | μA |
| | Forward Voltage | V _F | I _F =0.6A,①-,②+ | | V |
| Driving Saturation Voltage | V _{D(sat)} | I _C =1.5A, I _B =0.3A, ⑤-,④+ | MIN 1.7 | MIN 1.7 | V |
| | | | MAX 2.3 | MAX 2.3 | |

●Standard Operating Condition•Design Standard For Application Circuit

| Item | Conditions | Ratings | | Unit |
|------------------------|------------|----------|----------|------|
| | | P Class | N Class | |
| Input Rated Voltage | | AC90~132 | AC90~132 | V |
| Output Nominal Wattage | | 12 | 12 | W |
| Output Nominal Voltage | | 12 | 12 | V |
| Output Nominal Current | | 1 | 1 | A |

●Standard Operating Condition•Standard Operating Characteristics (Ta=25°C)

| Item | Conditions | Ratings | | Unit | | |
|---|--|---|--|-----------|----------------|----------------|
| | | P Class | N Class | | | |
| Minimum Input Full Load Output Voltage | V _{in} =90V, I _O =1A | 12.0±0.6 | 12.0±0.6 | V | Fig 2, ① Refer | |
| Maximum Input Light Load Output Voltage | V _{in} =132V, I _O =0.1A | 12.0±0.6 | 12.0±0.6 | V | Fig 2, ② Refer | |
| AC Input Voltage | I _O =1A | MAX 85 | MAX 85 | V | | |
| Over Current Protection | Foldback Current | V _{in} =132V, V _O =10V | MAX 1.75 | MAX 1.75 | A | Fig 2, ③ Refer |
| | Short Circuit | V _{in} =132V, R _O =0.5Ω | Nodamage To Any Device, Automatic Recovery. | | - | Fig 2, ④ Refer |
| Output Ripple Noise | V _{in} =90~132V, I _O =0.1~1A | MAX 150 | MAX 150 | mV P-P | | |

Figure in ○=Terminal Sign

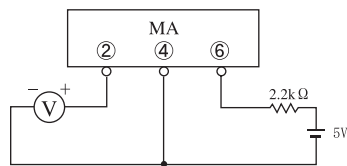


Fig1. Measurement Circuit

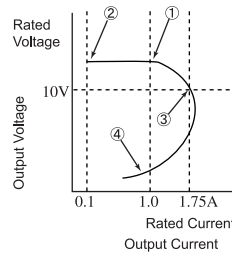
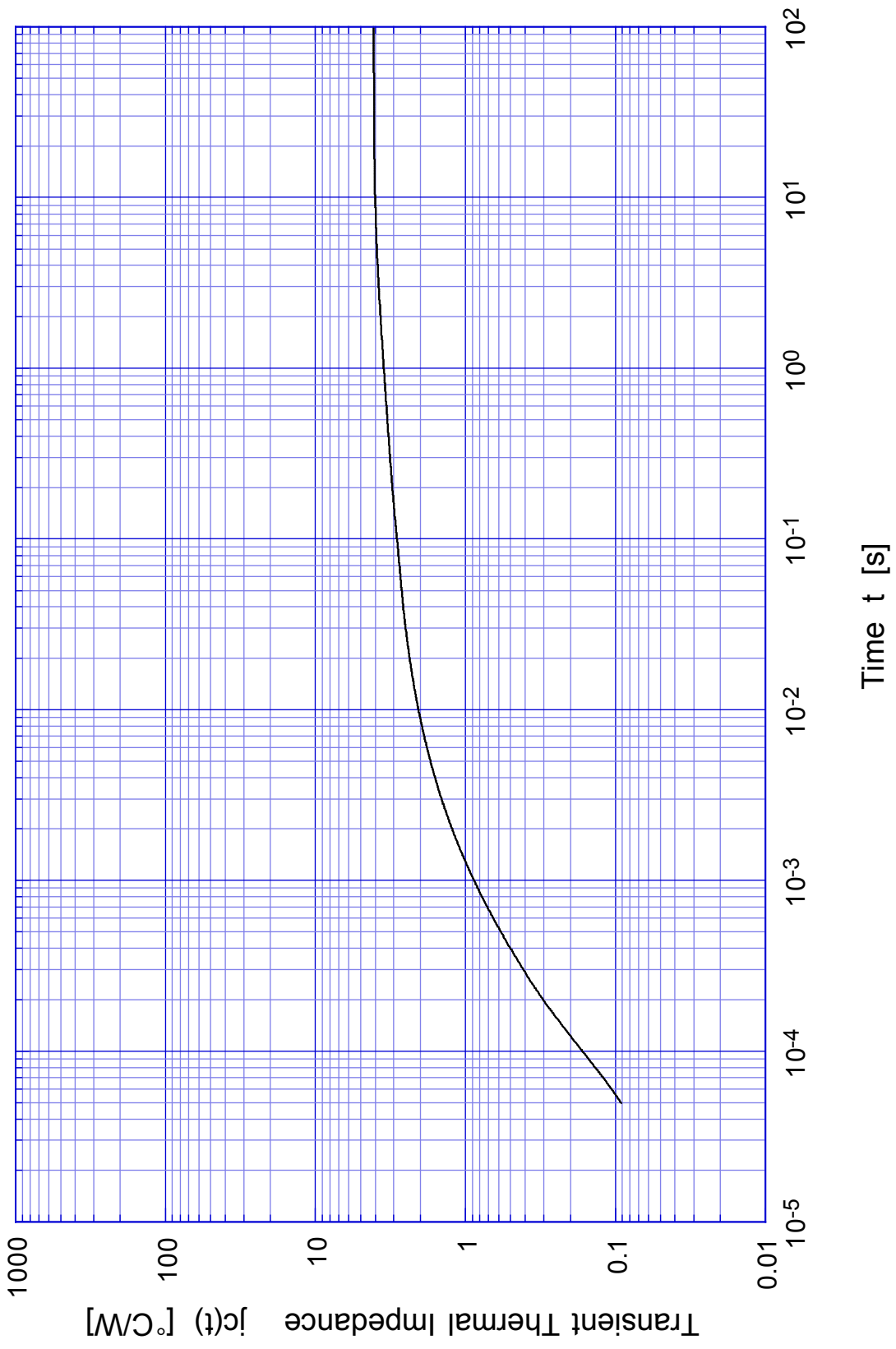


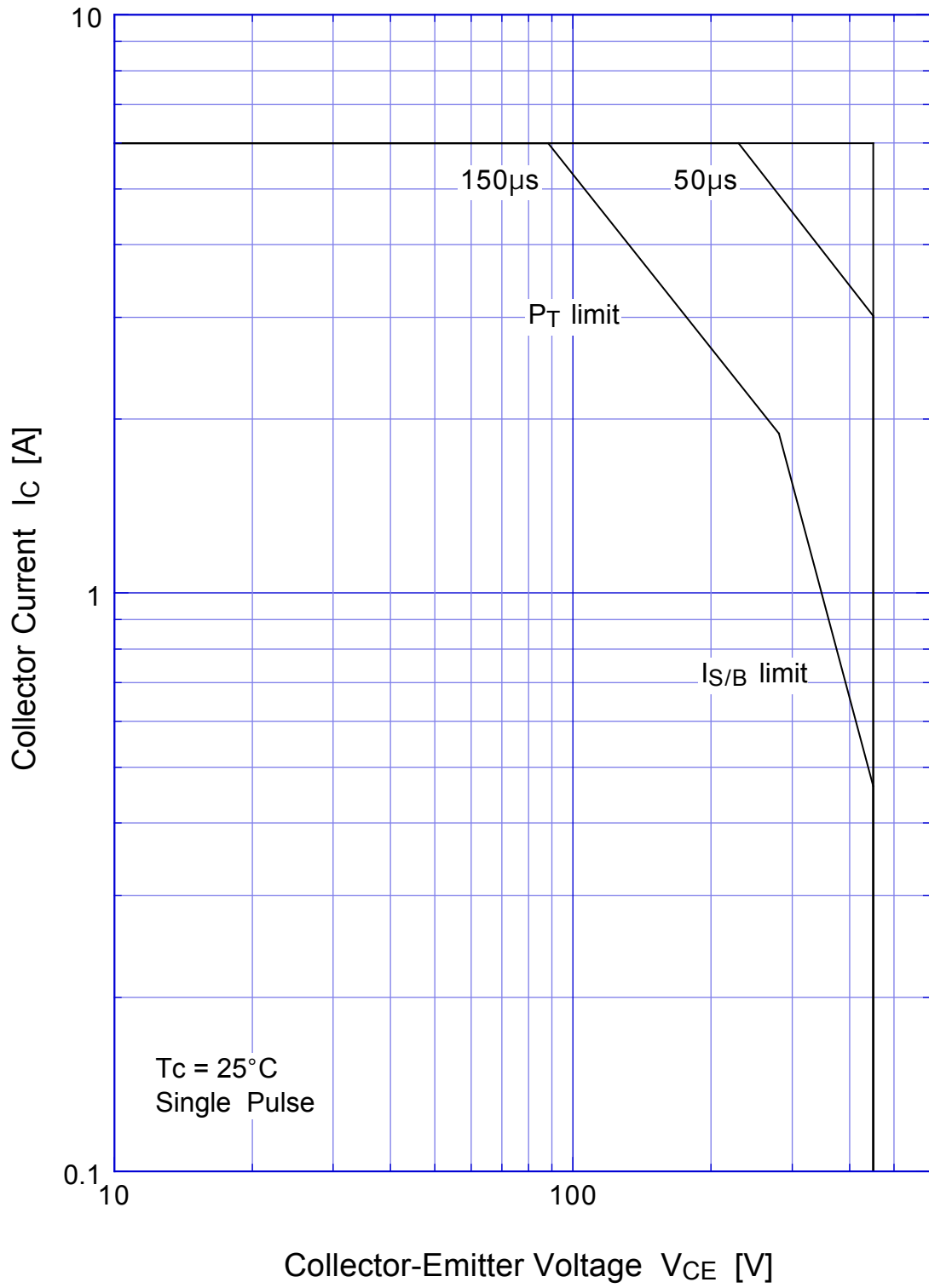
Fig2. Output Voltage/Current

MA2410 Transient Thermal Impedance



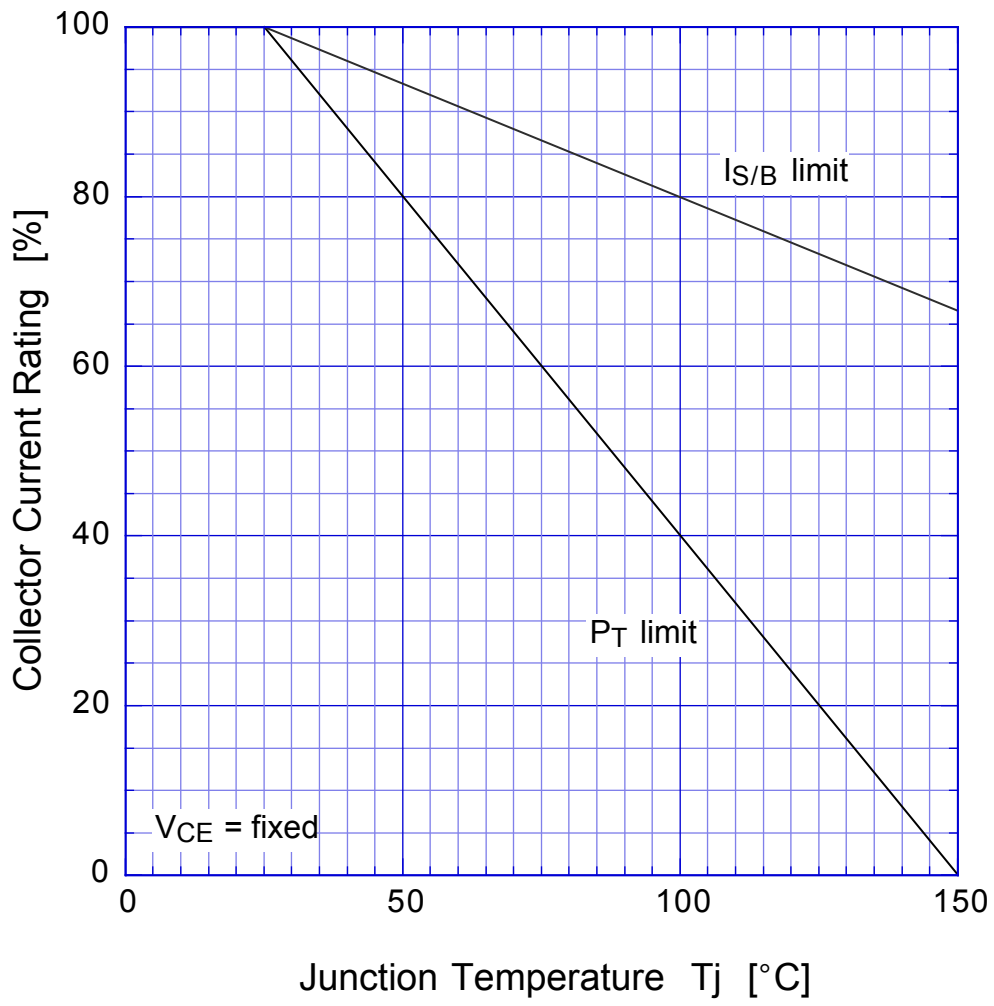
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Forward Bias SOA



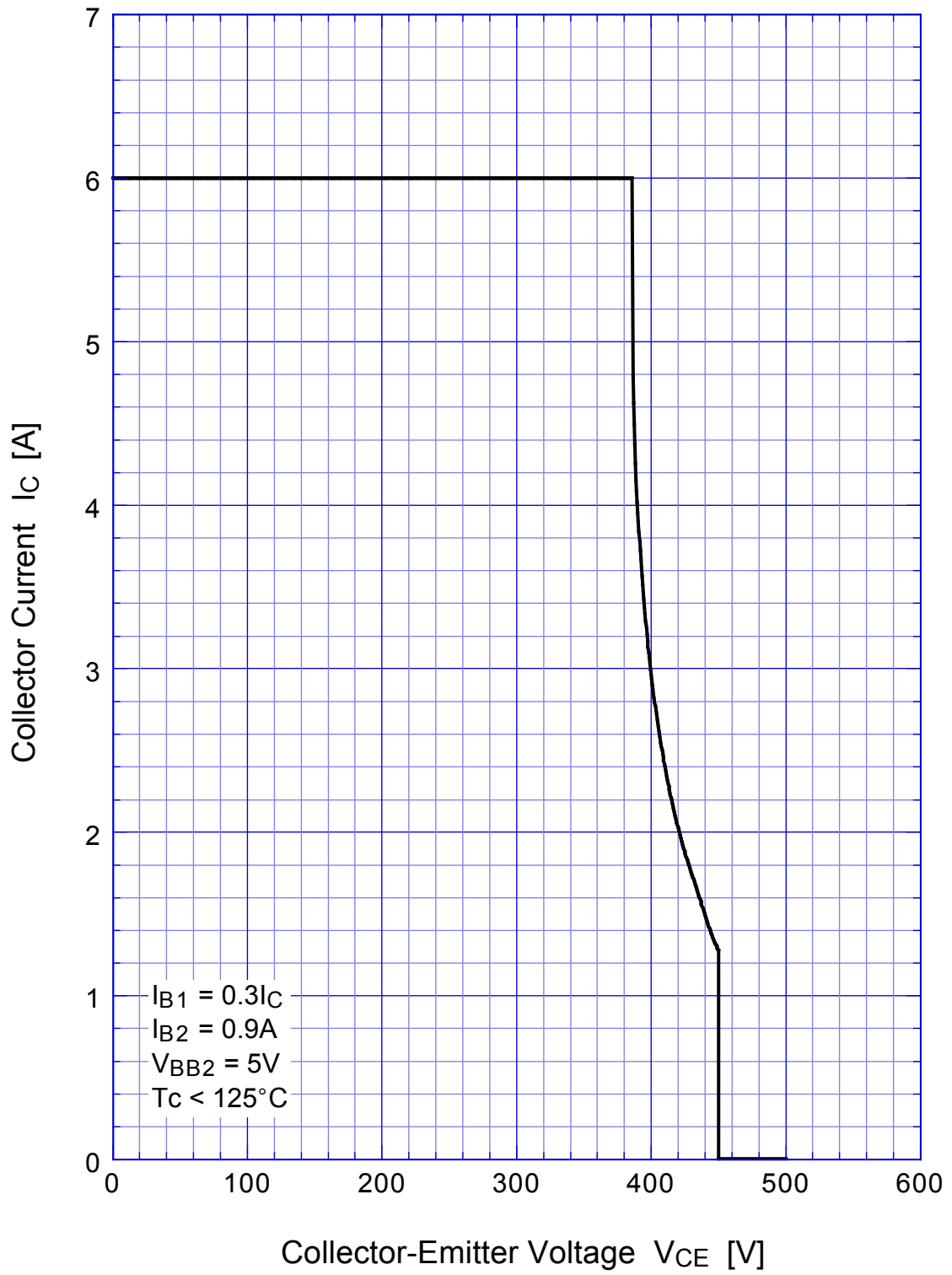
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Collector Current Derating



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Reverse Bias SOA



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$h_{FE} - I_C$

