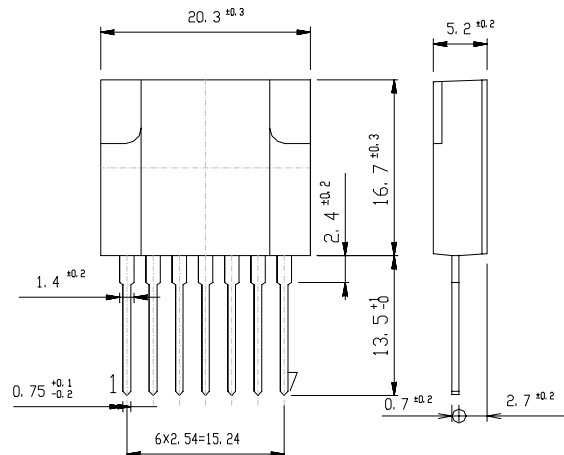


MA3450

OUTLINE DIMENSIONS

Case : MA7

Unit : mm



RATINGS

● Absolute Maximum Ratings

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-30~125	°C
Operating Temperature	Top		-20~125	°C
Junction Temperature	Tj		150	°C
Peak Input Voltage	Vin	②+,④-,Fig.1 is Measurement Circuit of Peak Input Voltage Vin and Collector Cutoff Current ICEX.	500	V
Input Current	Iin	DC ②+,④-	10	A
Maximum Power Dissipation	Pd	Pulse ②+,④- Pulse Width 150 μs MAX, Duty 1/2, Sawtooth Wave, Peak Value. Ta=25°C	20	A
	Pd	Heatsink Tc=100°C	3	W
			20	W
Dielectric Strength	Vdis	Terminals To Case AC 1 min	2	kV
Insulation Resistance		Terminals To Case 500VDC	100	MΩ
Max Voltage ④ to ⑦	V④•⑦	④+,⑦-	6	V
Max Current ⑥ to ④	I⑥•④	⑥+,④- (Peak) Duty Max 3/5	100	mA
Max Current ⑤ to ④	I⑤•④	⑤+,④- (Q2 Collector Current)	500	mA

●Electrical Characteristics (Tc=25°C)

Electrical Characteristics (Tc=25°C)					
Item		Symbol	Conditions	Ratings	Unit
Q1	Collector Cutoff Current	ICEX	VCE=500V, Fig.1 is Measurement Circuit of Peak Input Voltage Vin and Collector Cutoff Current ICEX, ②+, ④-	MAX 100	μ A
	DC Current Gain	hFE	VCE = 5V, IC = 5A, ②+, ④-, ⑤IB	15~30	
	Collector to Emitter Saturation Voltage	VCE(sat)	IC=5A, IB=1.0A, ②+, ④-, ⑤IB	MAX 1.7	V
	Driving Saturation Voltage	VD(sat)	IC=1.5A, IB=0.3A, ②+, ④-, ⑤IB	MAX 2.3	V
	Thermal Resistance	θ jc	Junction to Case	MAX 2.5	°C/W

●Standard Operating Condition•Design Standard For Application Circuit

Item	Conditions	Ratings	Unit
Input Rated Voltage		AC85~132	V
Output Nominal Wattage		100	W
Output Nominal Voltage		24	V
Output Nominal Current		4.2	A

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

Item		Conditions	Ratings	Unit	
AC Input Voltage		$I_O=4.2A, 20.5V \leq V_O \leq 24.6V$	MAX 85	V	
Minimum Input Full Load Output Voltage		$V_{in}=90V, I_O=4.2A$	24.0 ± 0.6	V	Fig 2, ① Refer
Maximum Input Light Load Output Voltage		$V_{in}=132V, I_O=0.0A$	24.0 ± 0.6	V	Fig 2, ② Refer
Over Current Protection	Foldback Current	$V_{in}=132V, V_O=20V$	MAX 6.0	A	Fig 2, ③ Refer
	Short Circuit	$V_{in}=132V, R_O=0.5 \Omega$	Nodamage To Any Device, Automatic Recovery.	—	Fig 2, ④ Refer

Figure in ○=Terminal Sign

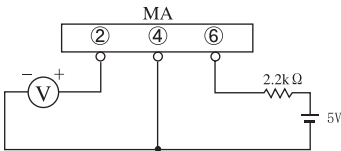


Fig1. Measurement Circuit

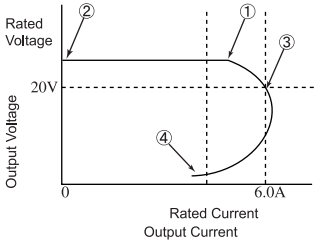
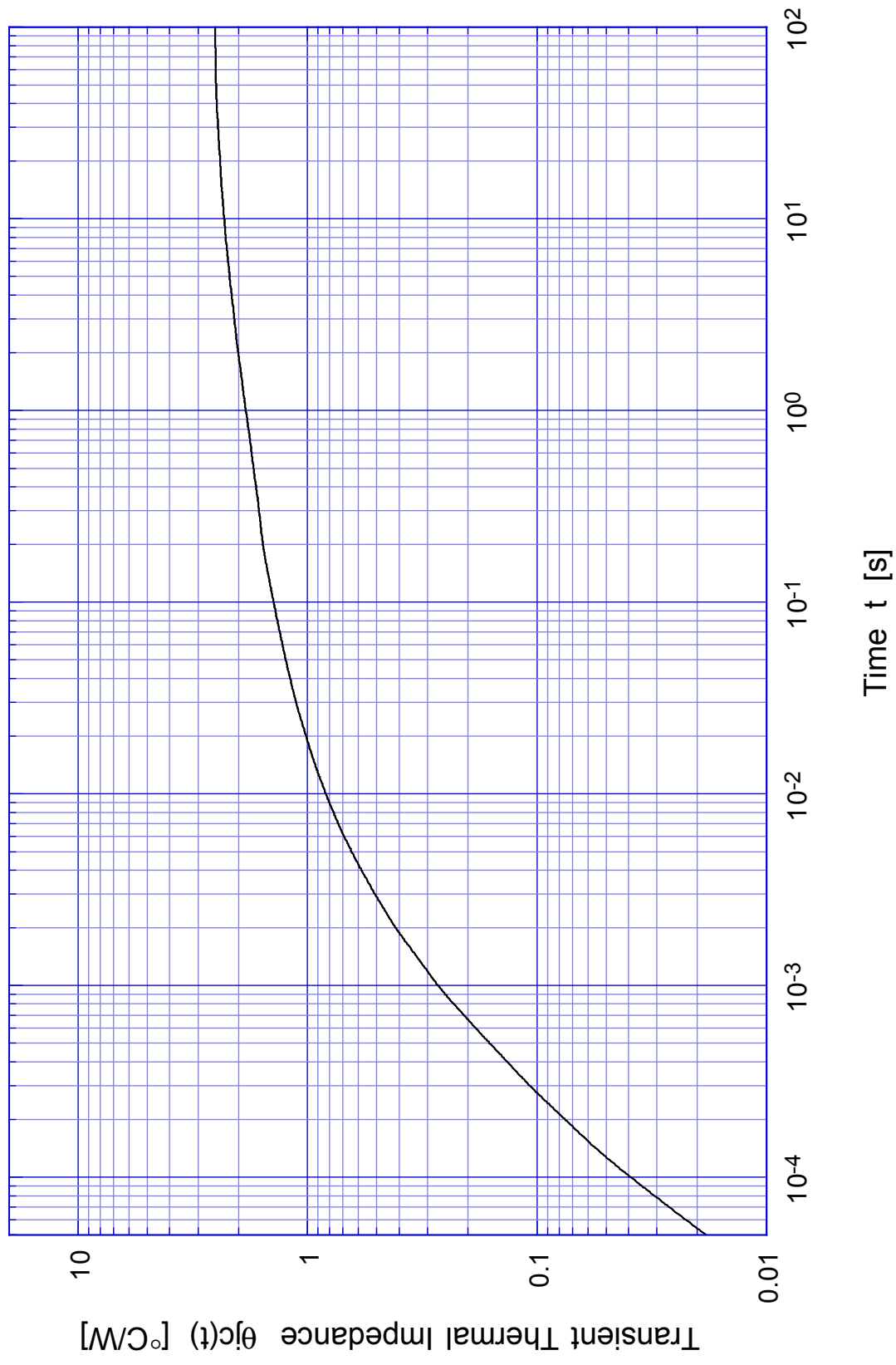


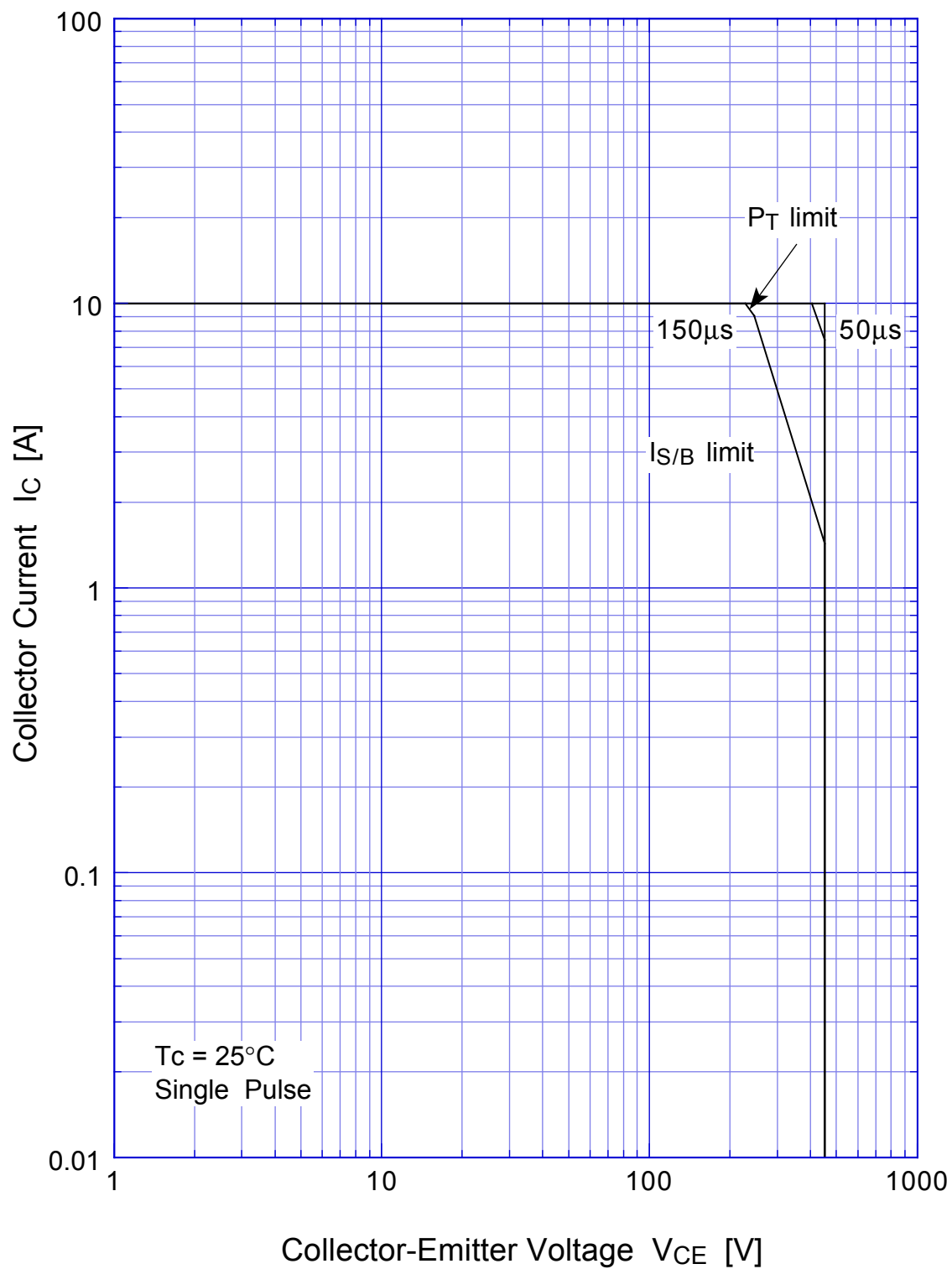
Fig2. Output Voltage/Current

MA3450 Transient Thermal Impedance



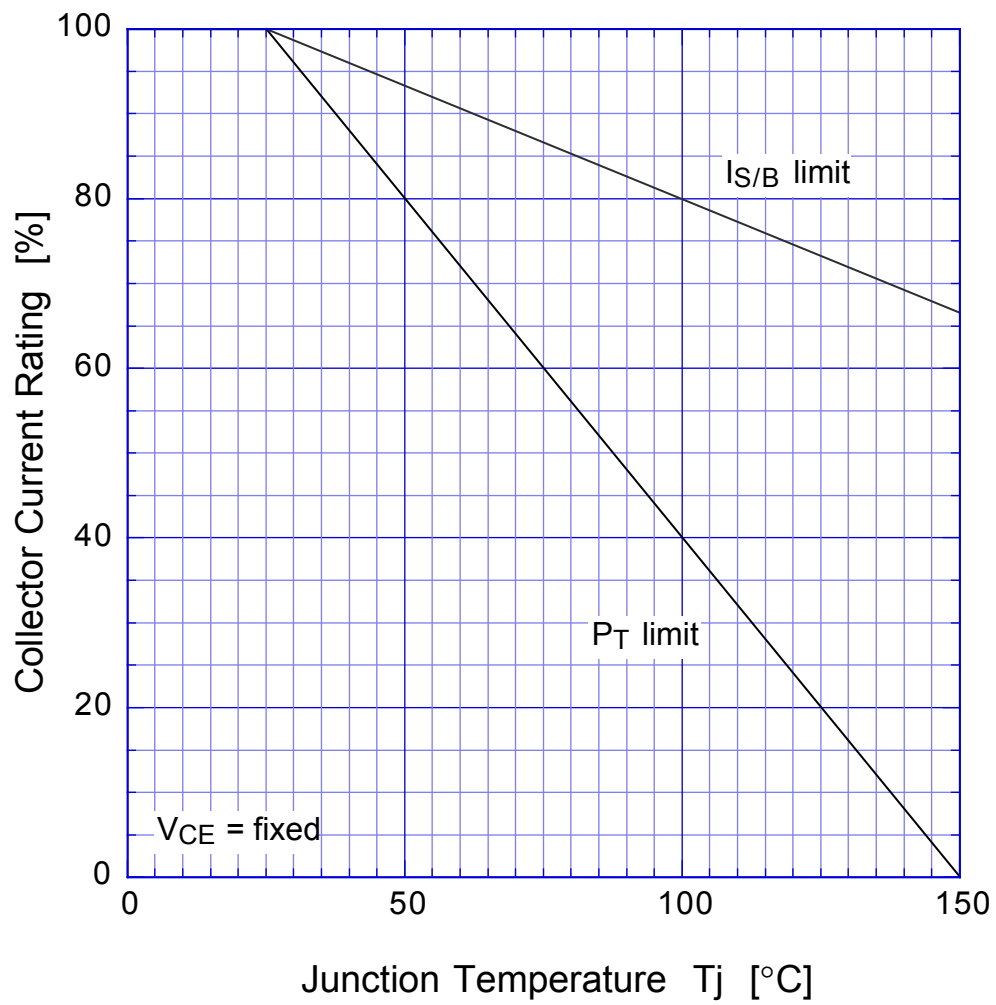
MA3450

Forward Bias SOA



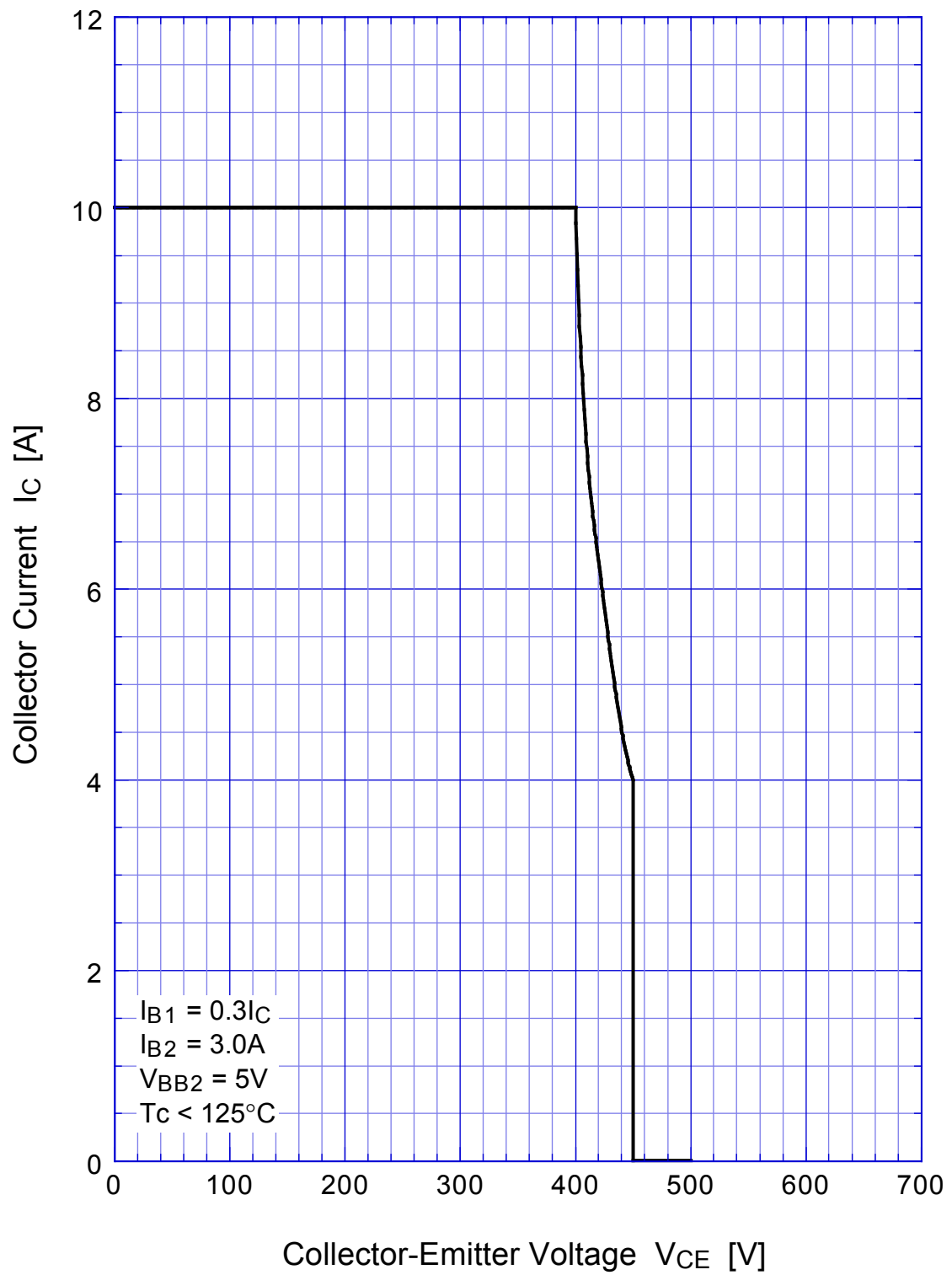
MA3450

Collector Current Derating



MA3450

Reverse Bias SOA



MA3450

$h_{FE} - I_C$

