



Features

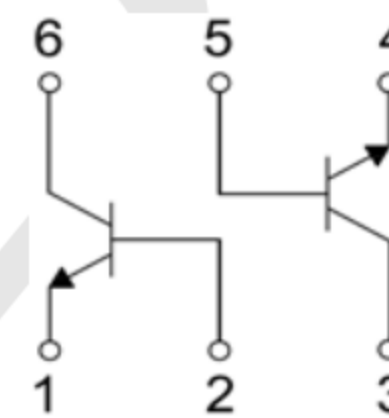
- Epitaxial Planar Die Construction
- Complementary PNP Type Available(TPMMDT5401)
- Ideal for Medium Power Amplification and Switching

Ordering Information

- Shipping Qty:3000/7inch Tape& Reel



Circuit Diagram



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

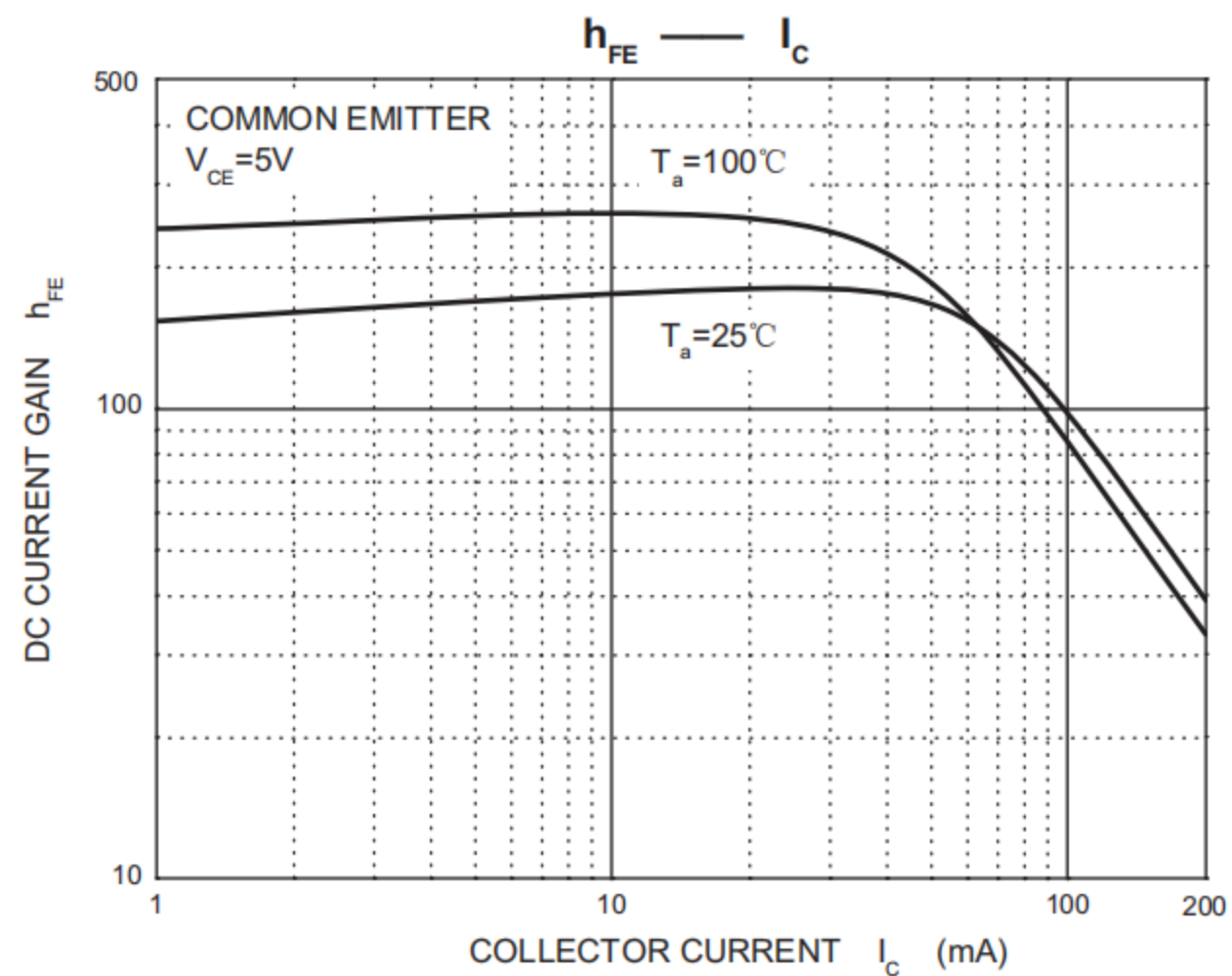
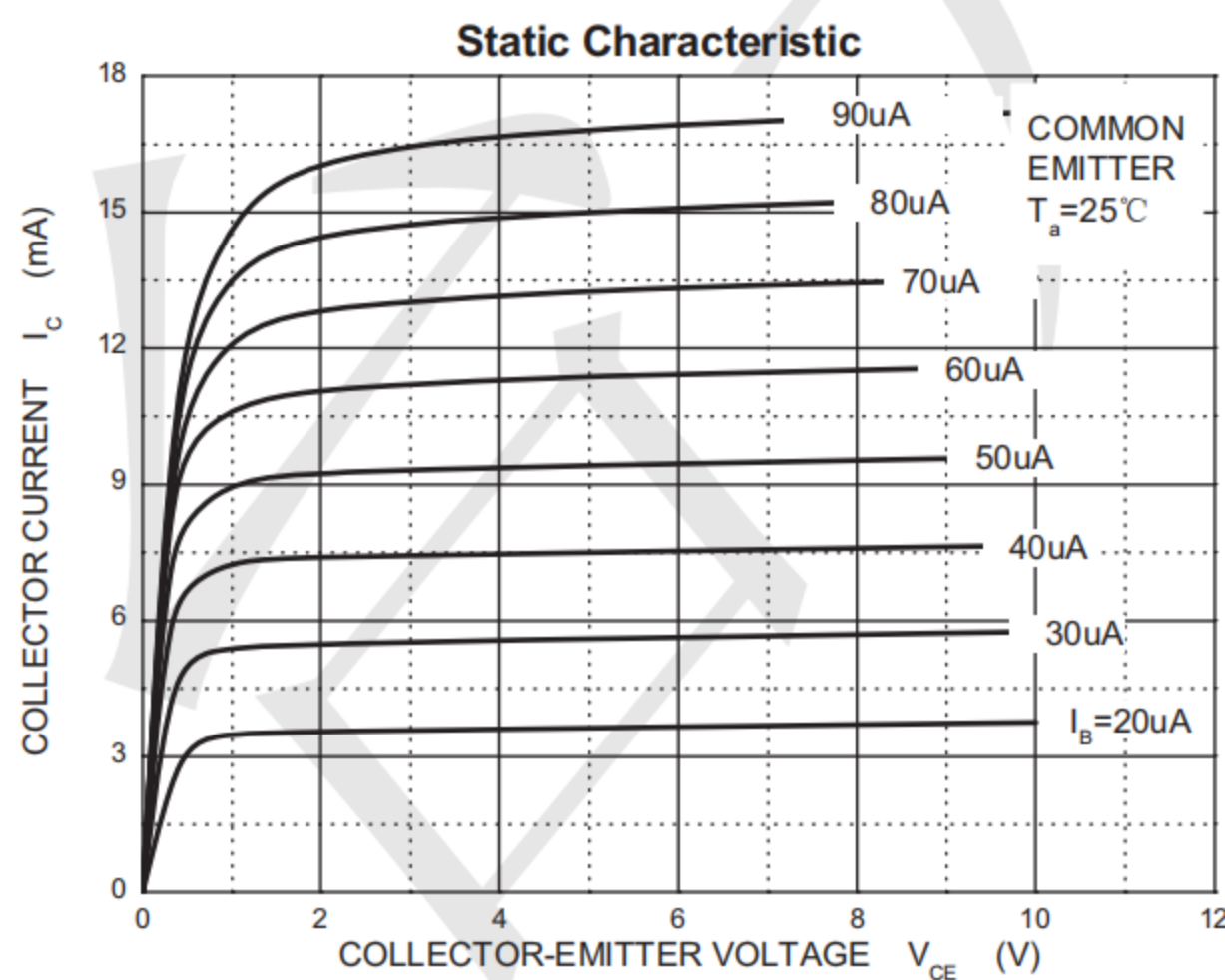
Symbol	Parameter	Value	Units
V _{CBO}	Collector- Base Voltage	180	V
V _{CEO}	Collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	0.2	A
P _C	Collector Power Dissipation	0.2	W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C



Electrical Characteristics (TA=25°C unless otherwise specified)

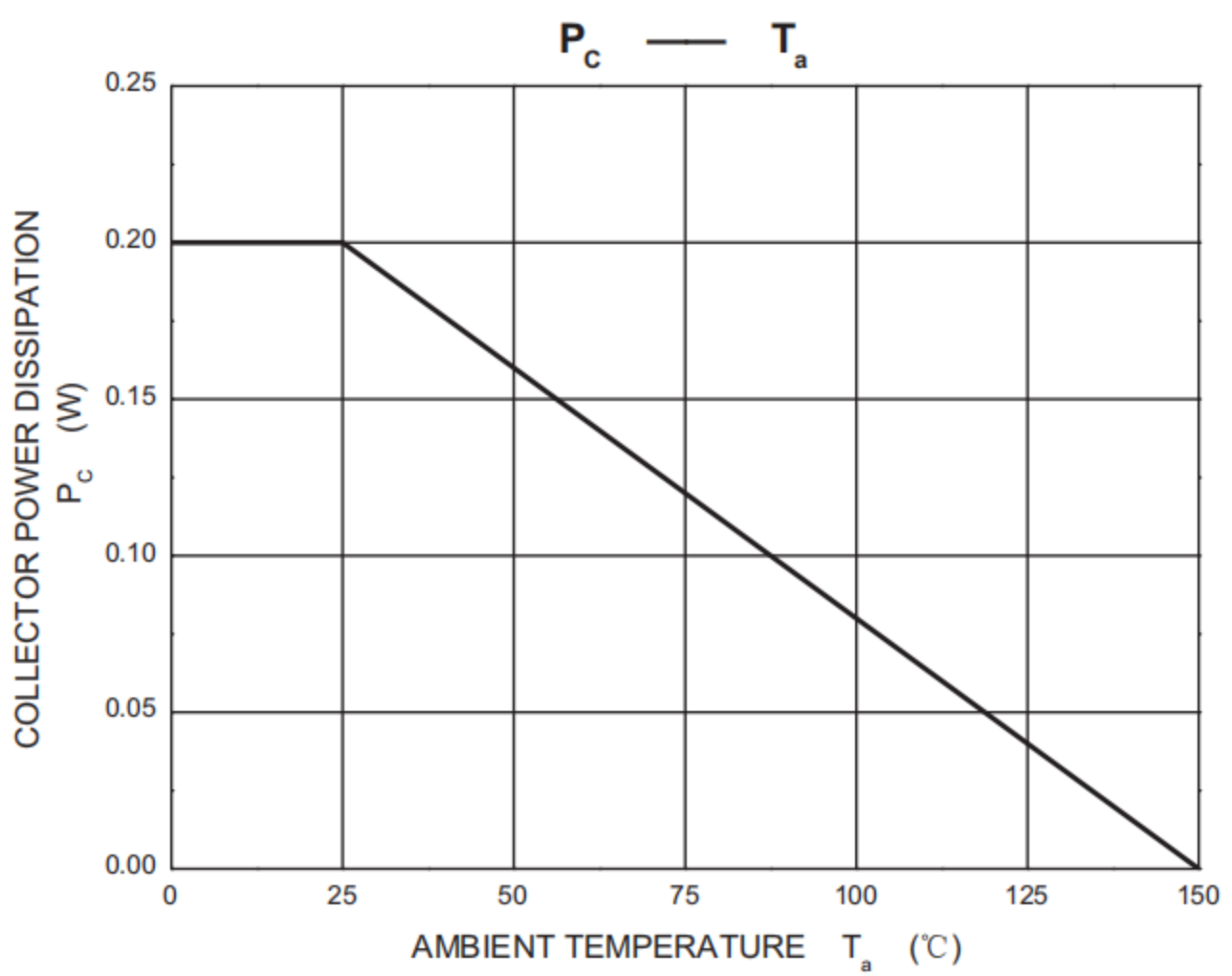
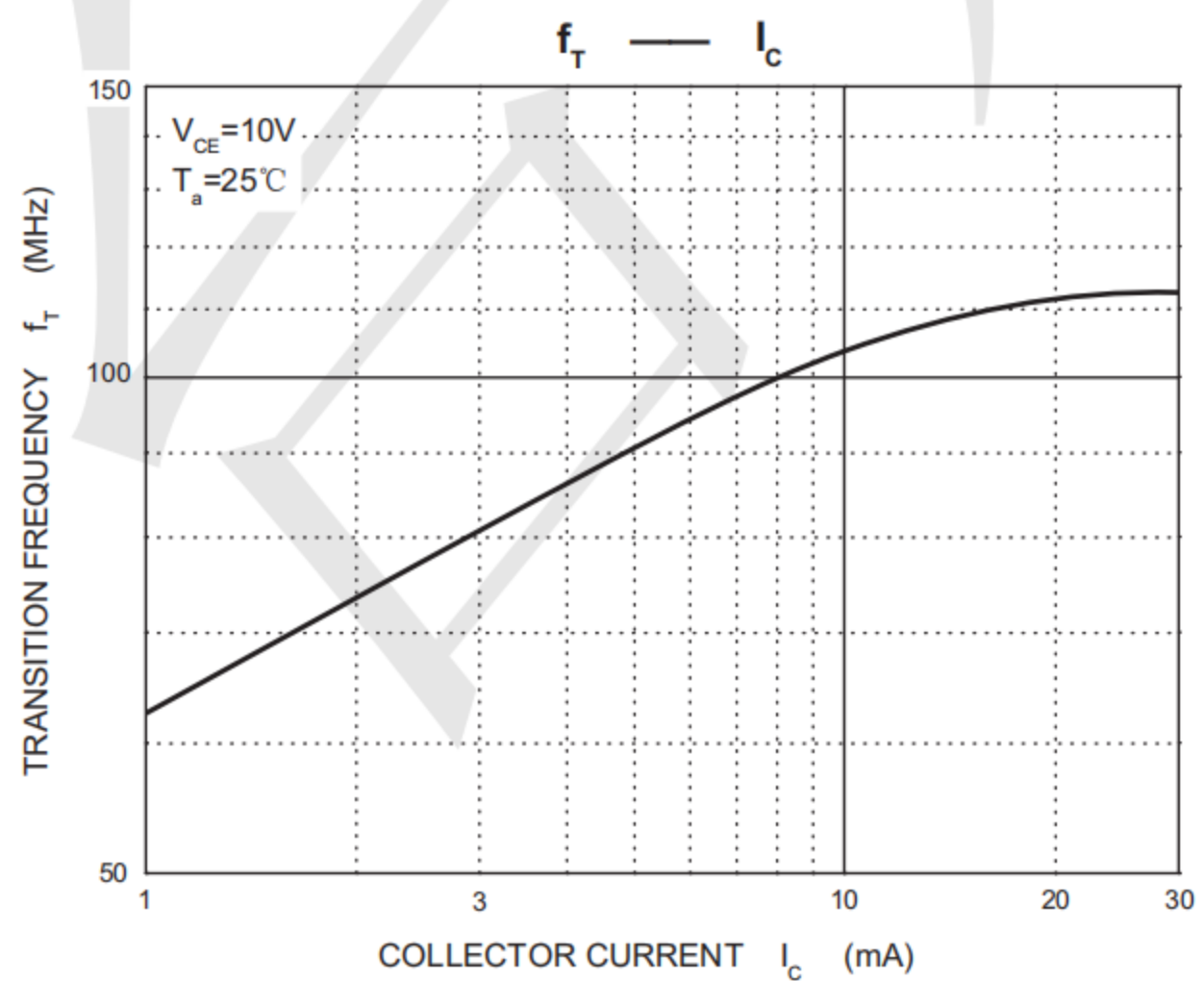
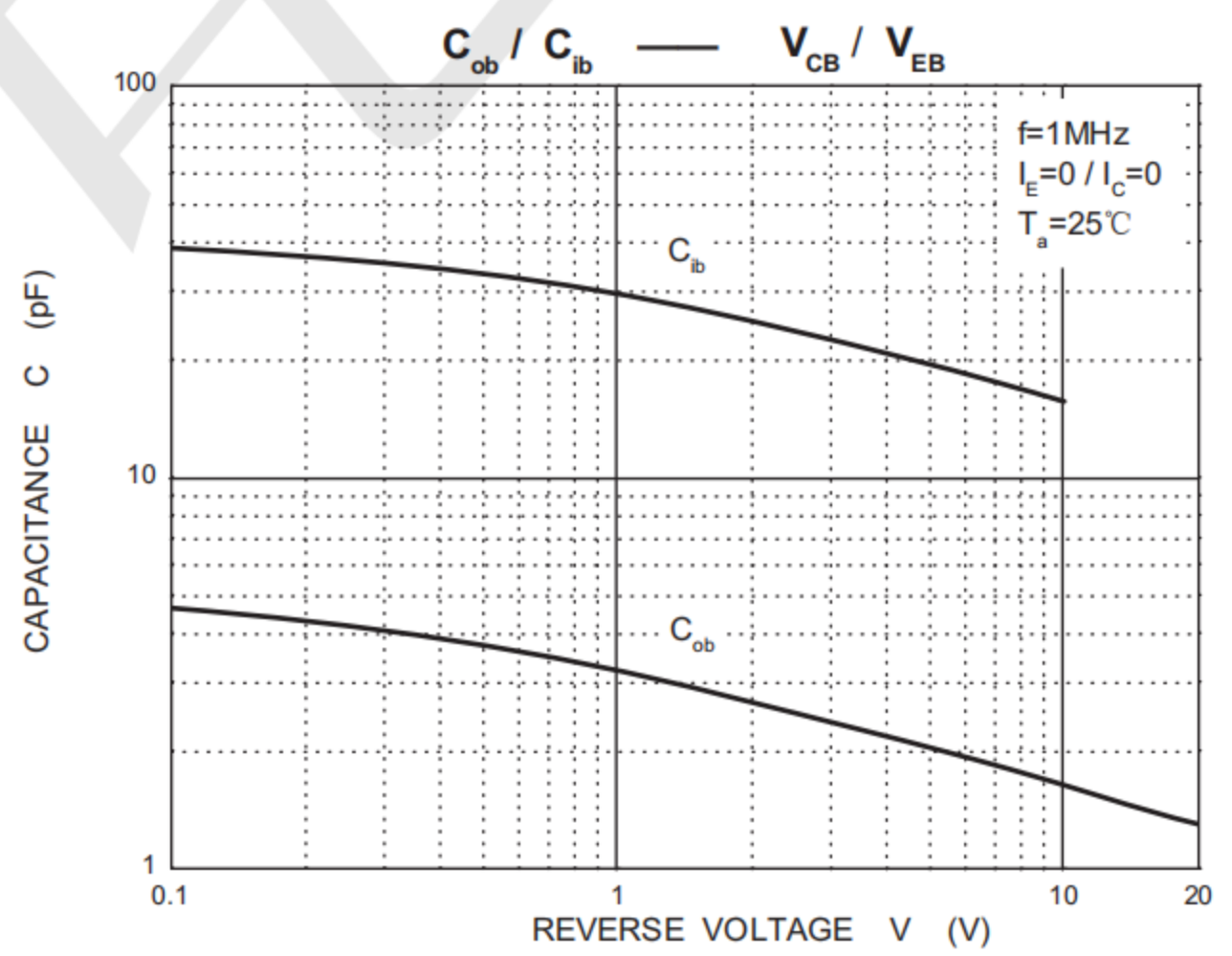
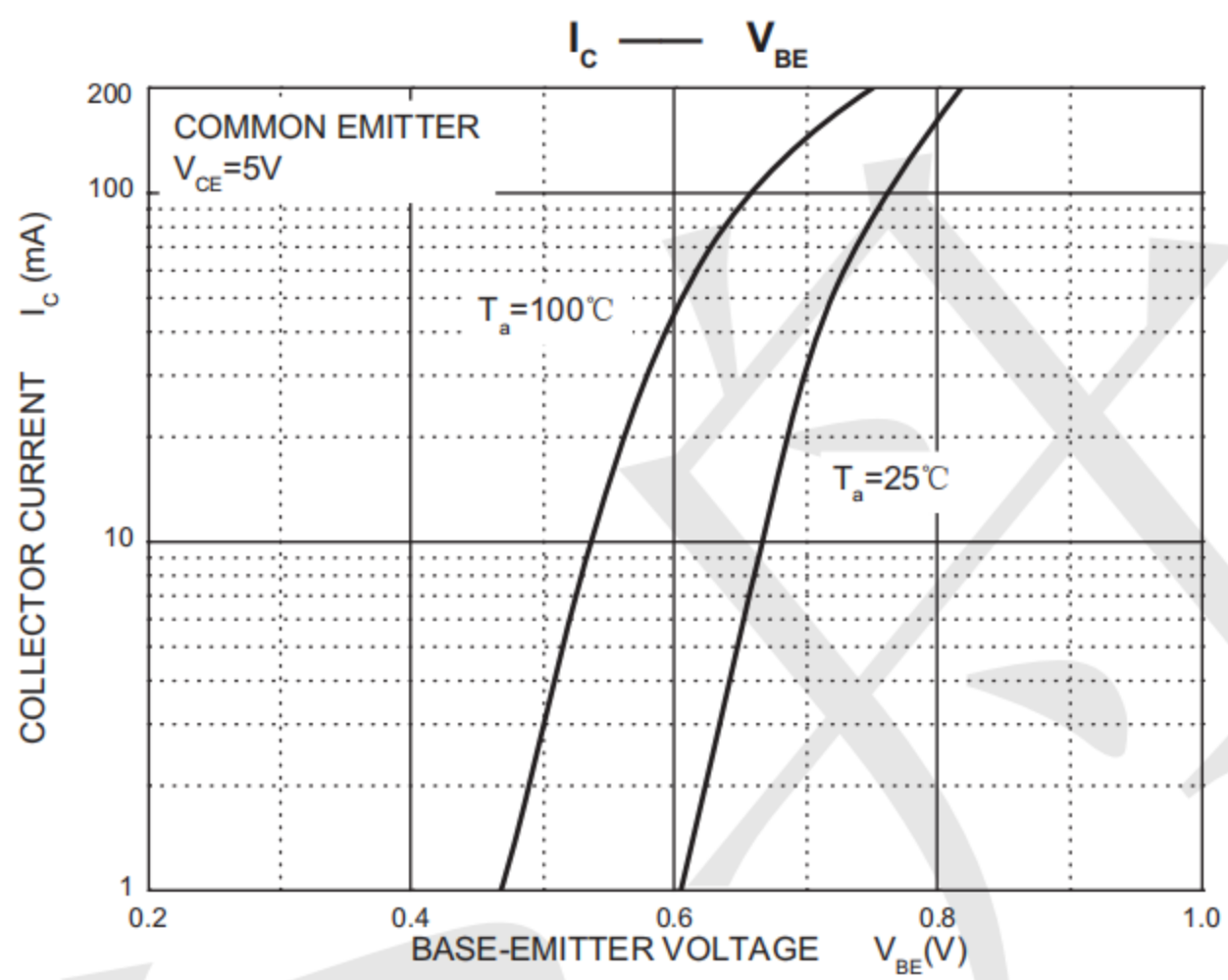
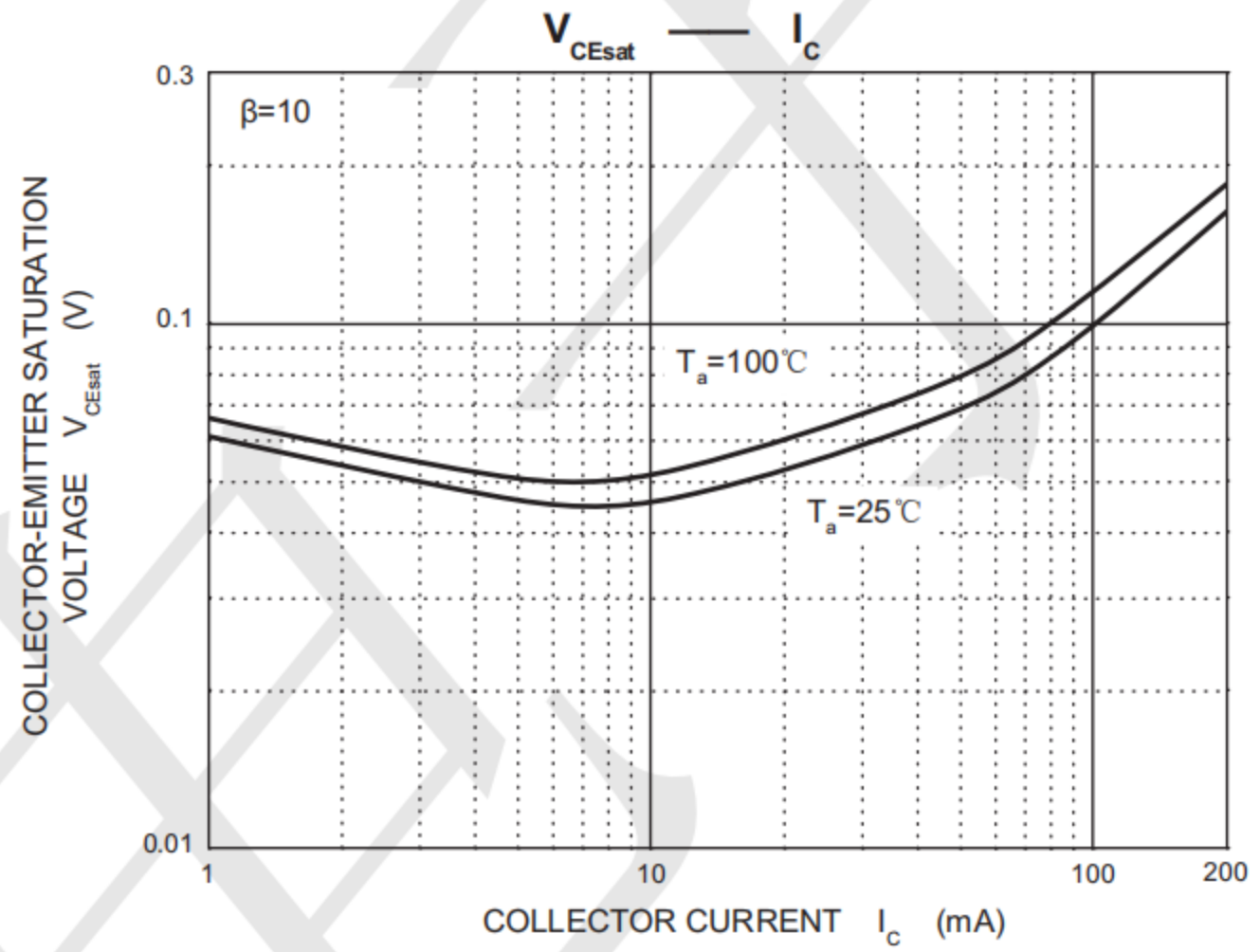
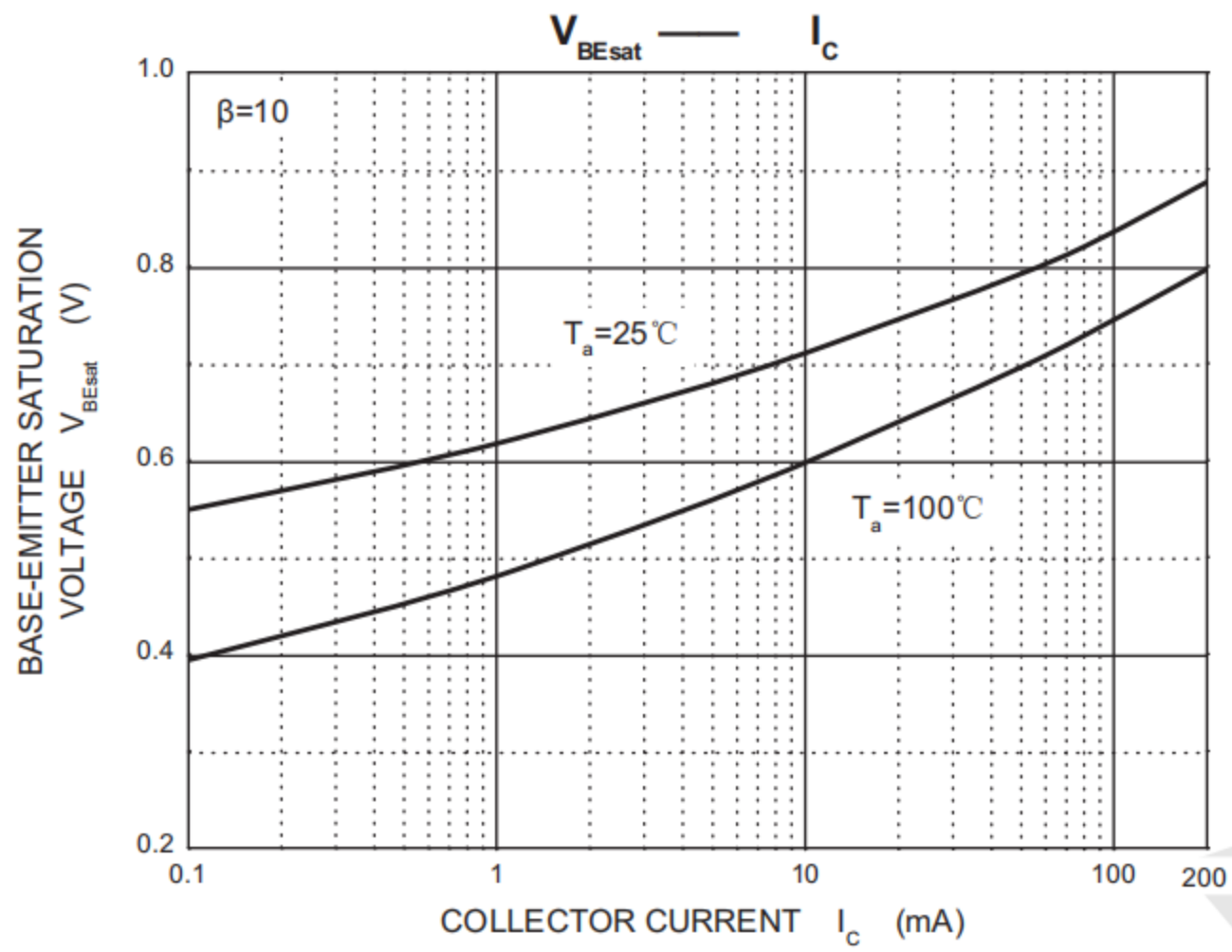
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=120V, I_E=0$			0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.05	μA
	$h_{FE(1)}$	$V_{CE}=5V, I_C=1mA$	80			
	$h_{FE(2)}$	$V_{CE}=5V, I_C=10mA$	100		300	
	$h_{FE(3)}$	$V_{CE}=5V, I_C=50mA$	30			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=10mA, I_B=1mA$			0.15	V
	$V_{CE(sat)2}$	$I_C=50mA, I_B=5mA$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C=10mA, I_B=1mA$			1	V
	$V_{BE(sat)2}$	$I_C=50mA, I_B=5mA$			1	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA, f=100MHz$	100		300	MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			6	pF
Noise Figure	NF	$V_{CE}=5V, I_C=0.2mA, R_S=1K\Omega, f=1kHz$			8	dB

Typical Performance Characteristics (TA=25°C unless otherwise Specified)



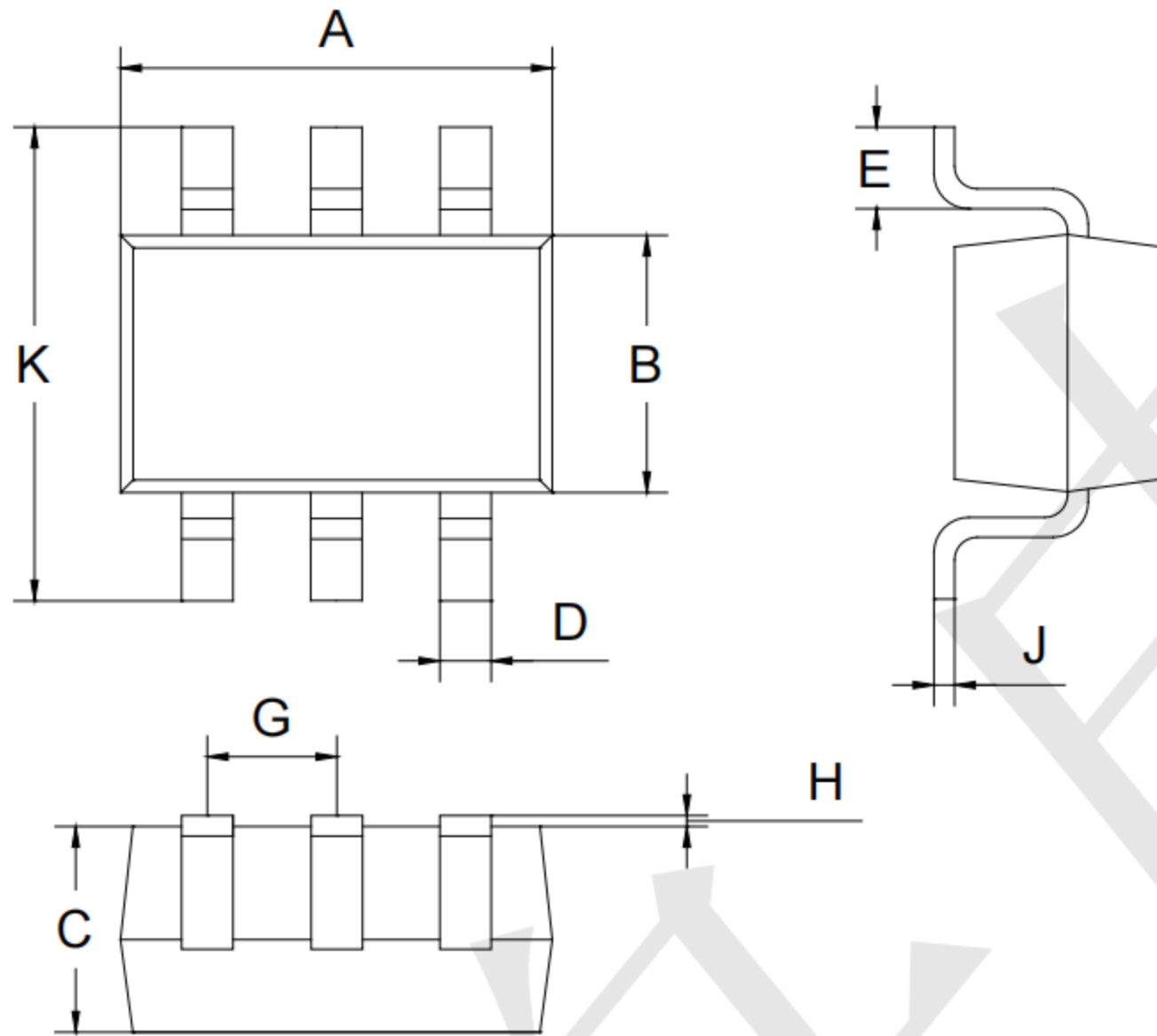


Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)





Outline Drawing - SOT363 (unit: mm)



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout-SOT363 (unit: mm)

