

Features

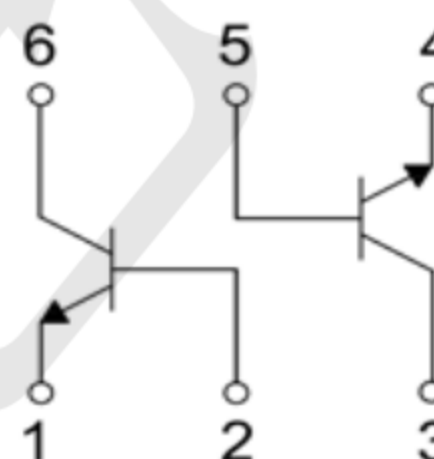
- Epitaxial Planar Die Construction
- Ideal for Low Power Amplification and Switching

Ordering Information

- Shipping Qty:3000/7inch Tape& Reel



Circuit Diagram



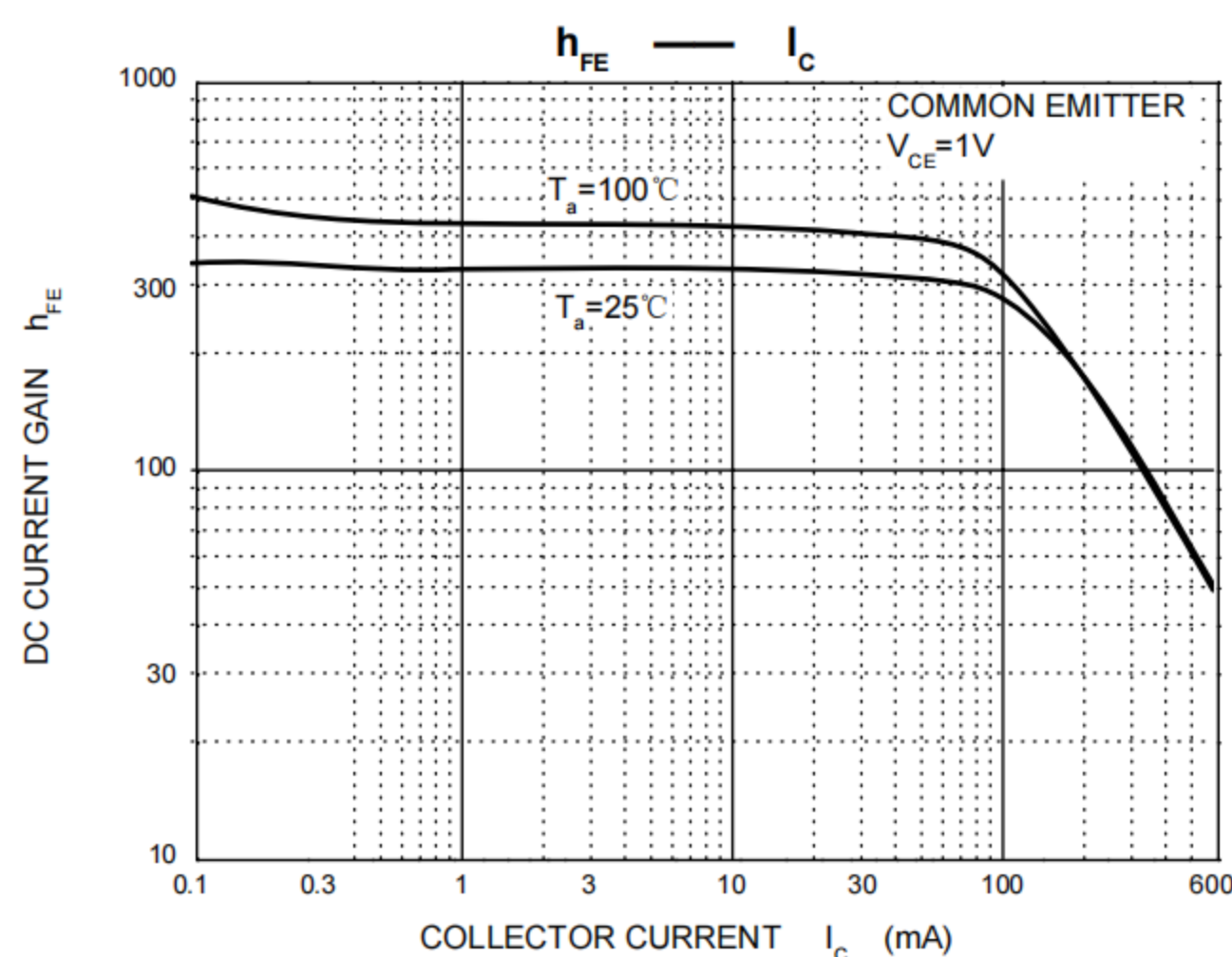
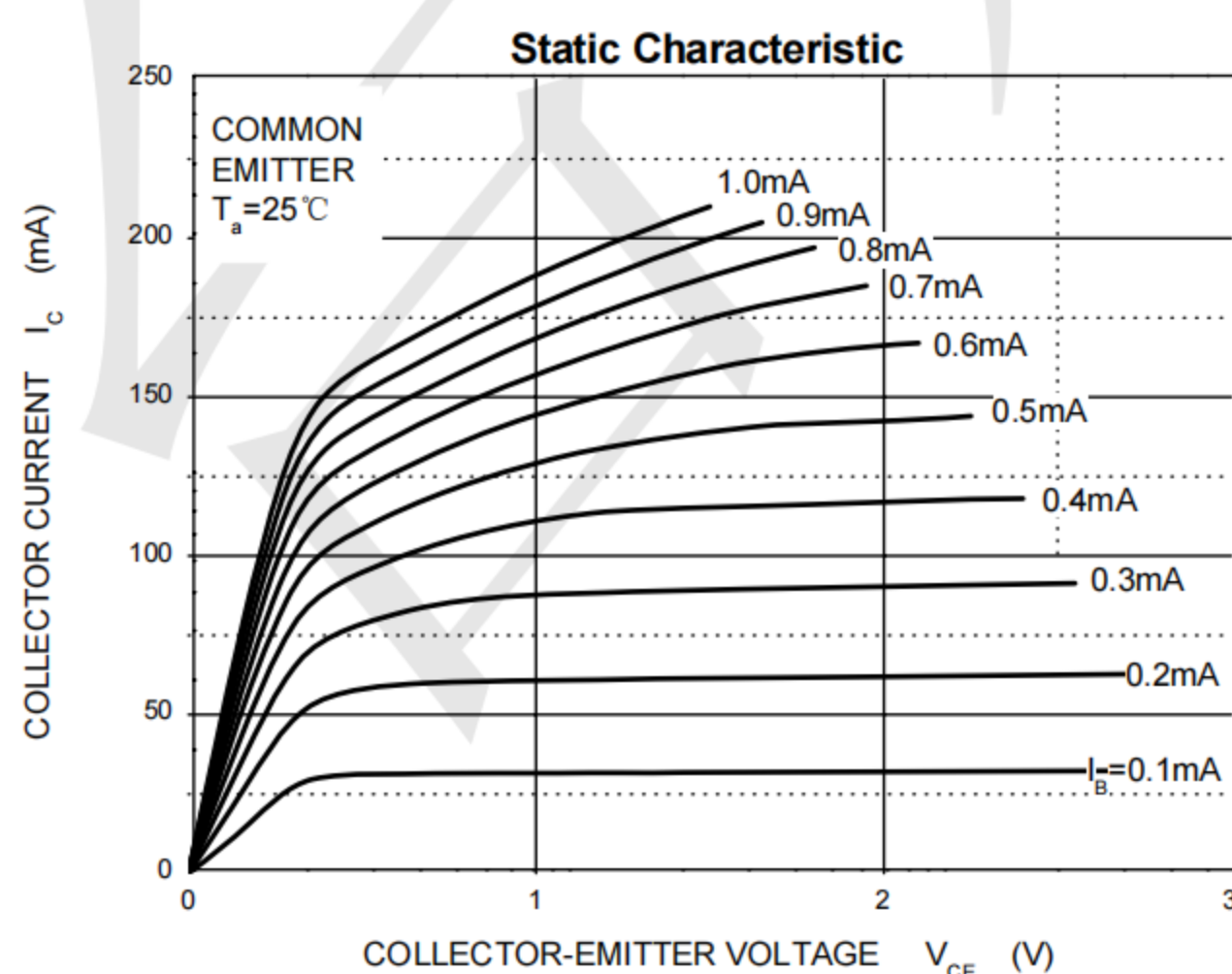
Absolute Maximum Ratings NPN 5551 (Tamb=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.6	A
P_C	Collector Power Dissipation	0.2	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	625	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

Electrical Characteristics NPN 4401 (TA=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu A, I_E = 0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 mA, I_B = 0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 50 V, I_E = 0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 35 V, I_B = 0$		0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 V, I_C = 0.1 mA$	20		
	$h_{FE(2)}$	$V_{CE} = 1 V, I_C = 1 mA$	40		
	$h_{FE(3)}$	$V_{CE} = 1 V, I_C = 10 mA$	80		
	$h_{FE(4)}$	$V_{CE} = 1 V, I_C = 150 mA$	100	300	
	$h_{FE(5)}$	$V_{CE} = 2 V, I_C = 500 mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = 150 mA, I_B = 15 mA$		0.4	V
	$V_{CE(sat)2}$	$I_C = 500 mA, I_B = 50 mA$		0.75	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = 150 mA, I_B = 15 mA$	0.75	0.95	V
	$V_{BE(sat)2}$	$I_C = 500 mA, I_B = 50 mA$		1.2	V
Transition frequency	f_T	$V_{CE} = 10 V, I_C = 20 mA, f = 100 MHz$	250		MHz
Output capacitance	C_{ob}	$V_{CB} = 5 V, I_E = 0, f = 1 MHz$		6.5	pF
Delay time	t_d	$V_{CC} = 30 V,$		15	nS
Rise time	t_r	$V_{BE} = 2 V, I_C = 150 mA, I_{B1} = 15 mA$		20	nS
Storage time	t_s	$V_{CC} = 30 V, I_C = 150 mA, I_{B1} = -I_{B2} = 15 mA$		225	nS
Fall time	t_f			30	nS

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





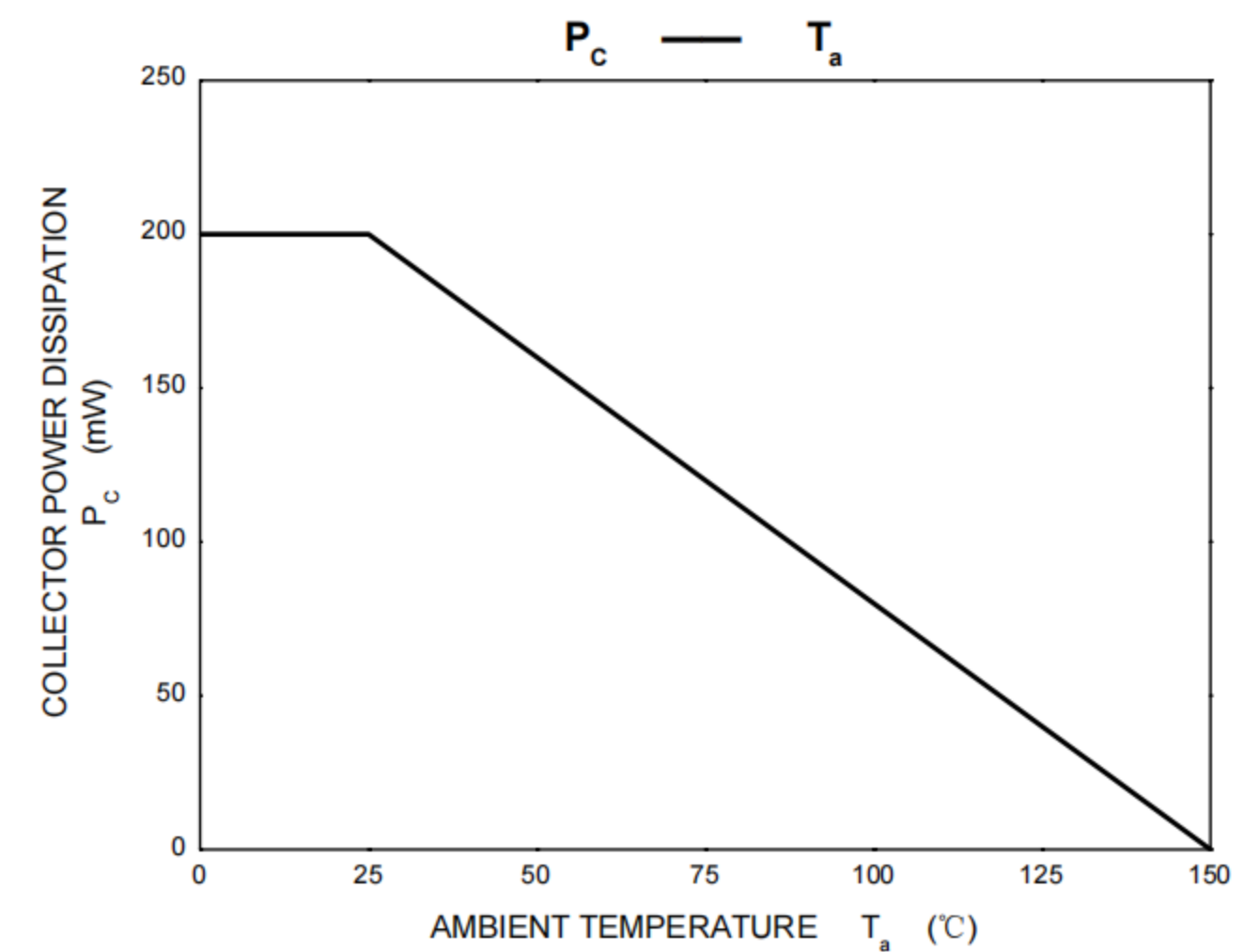
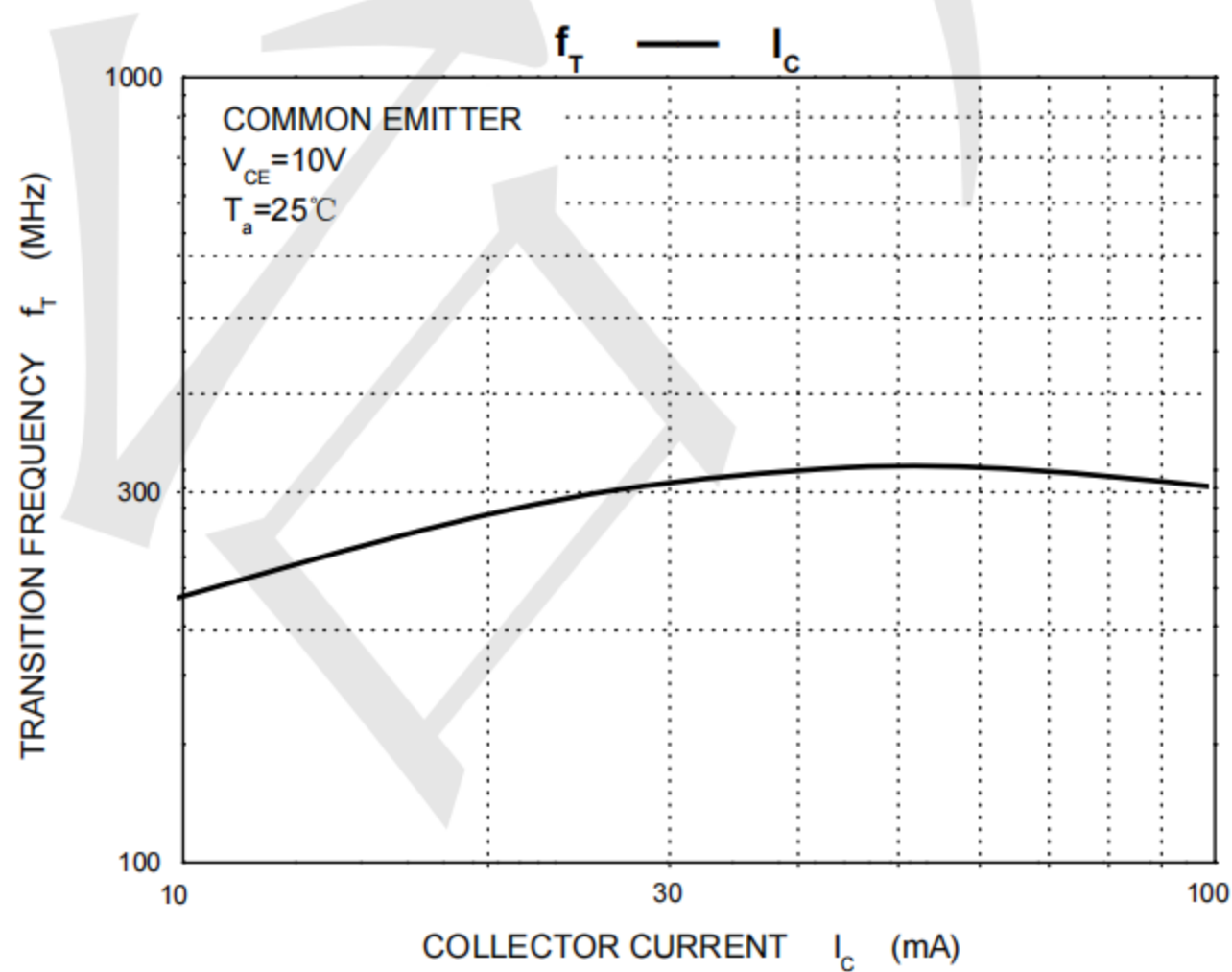
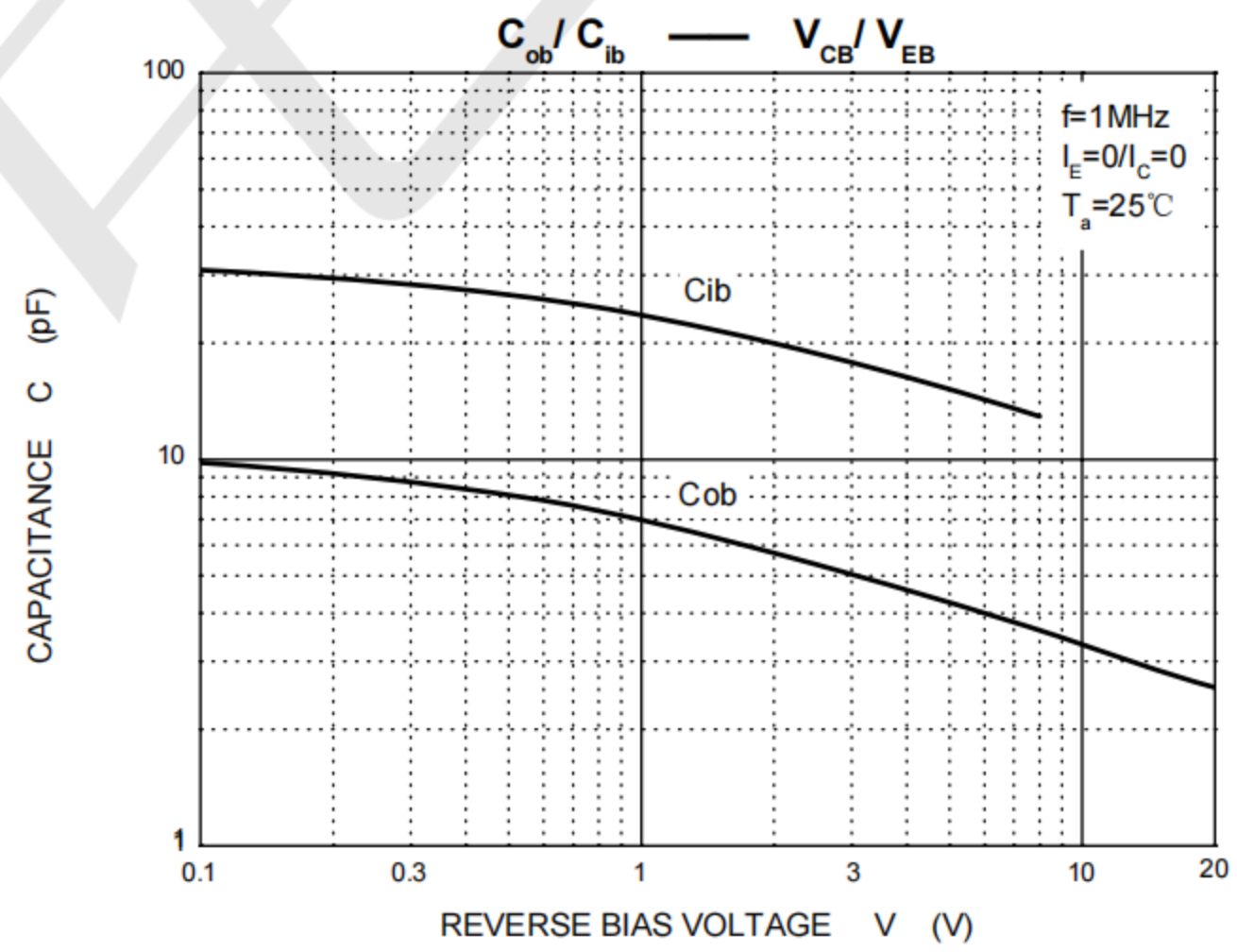
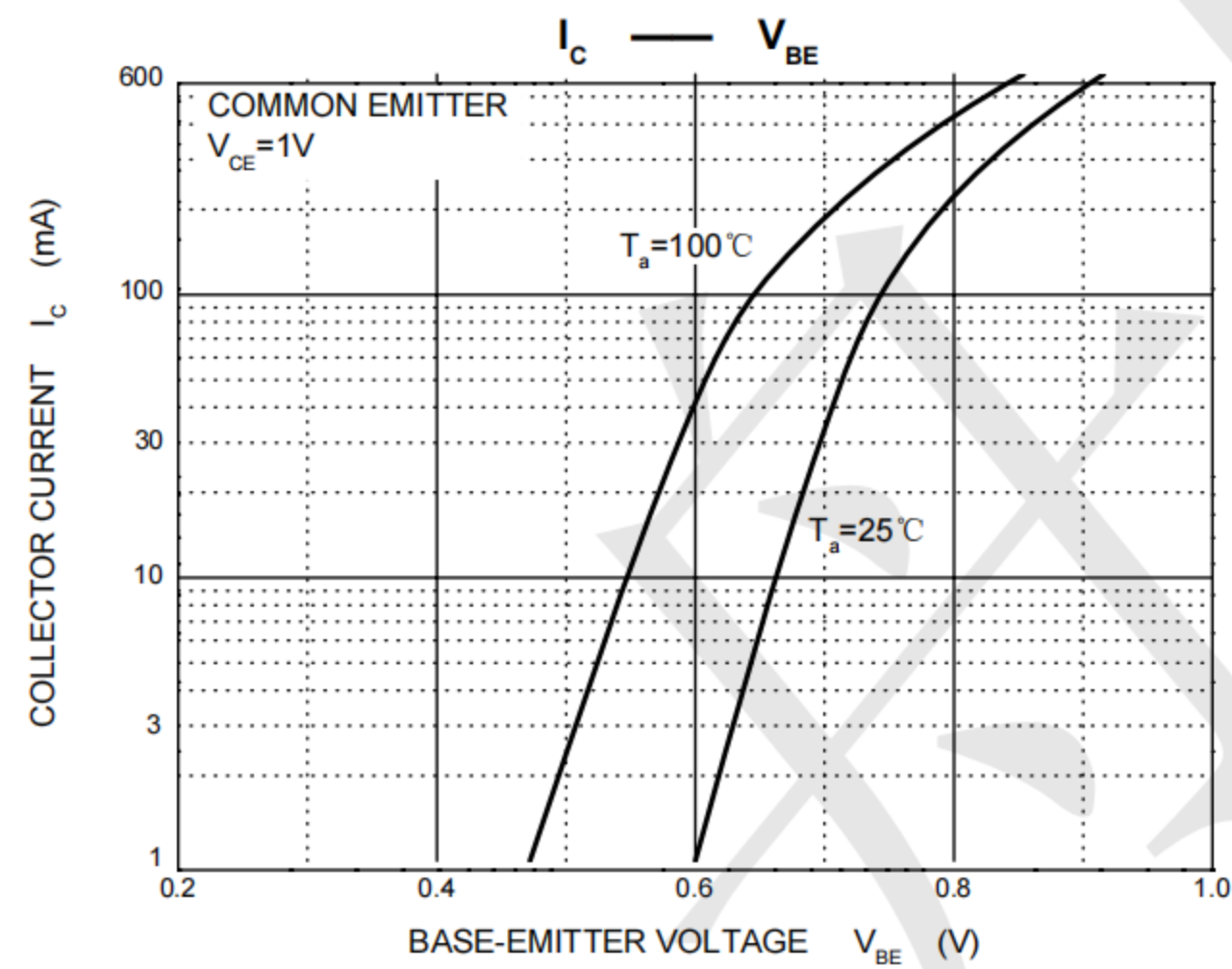
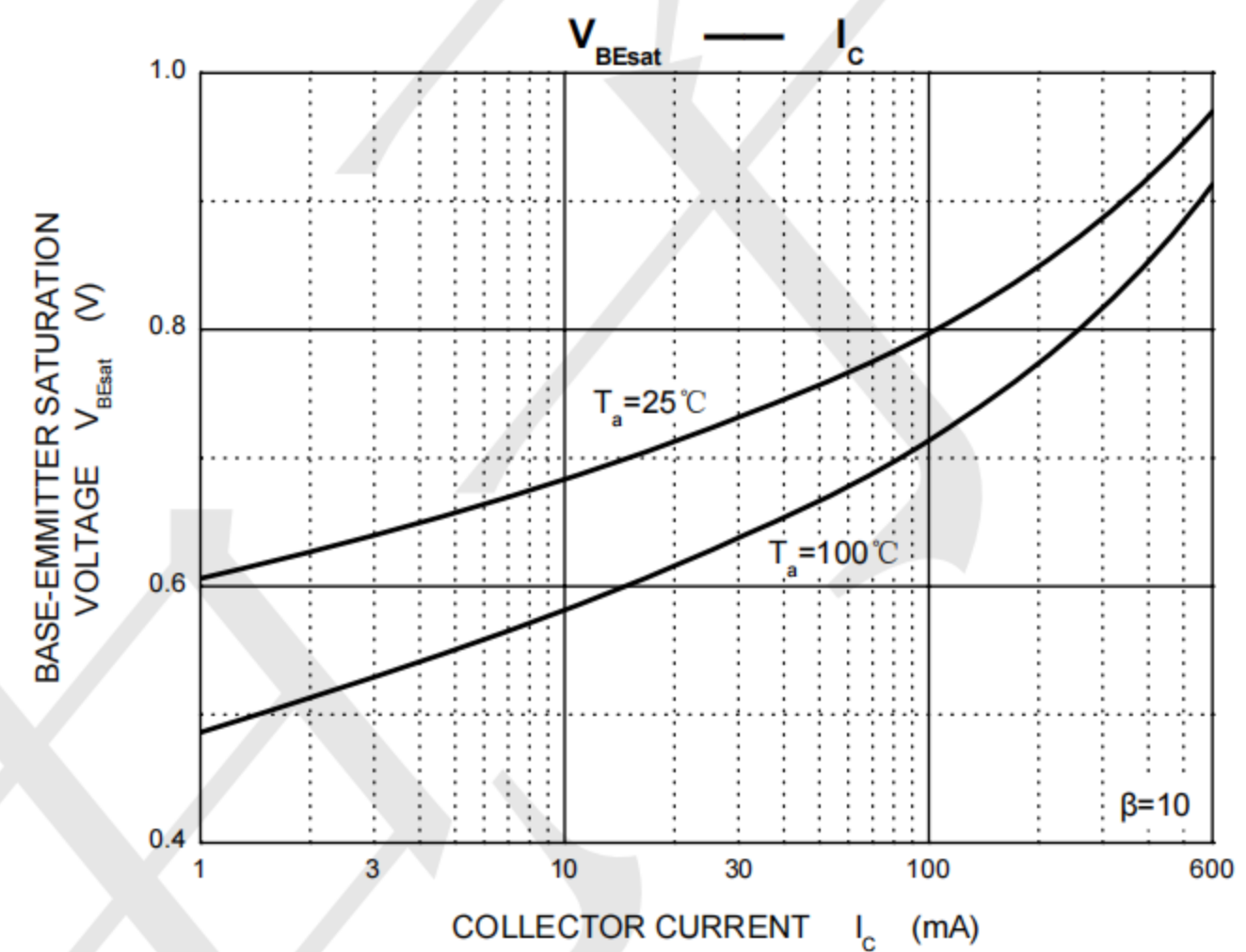
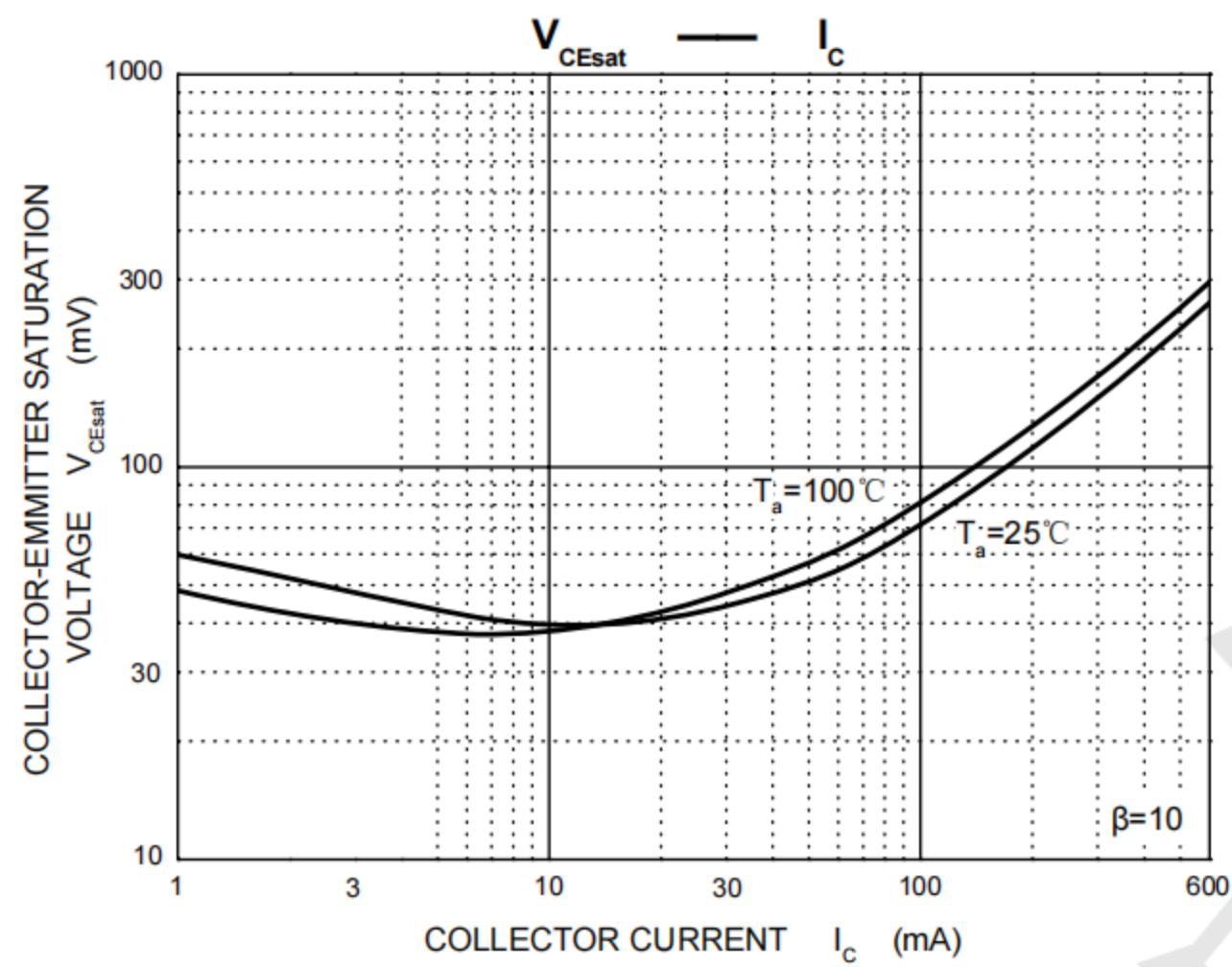
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—台用电子—

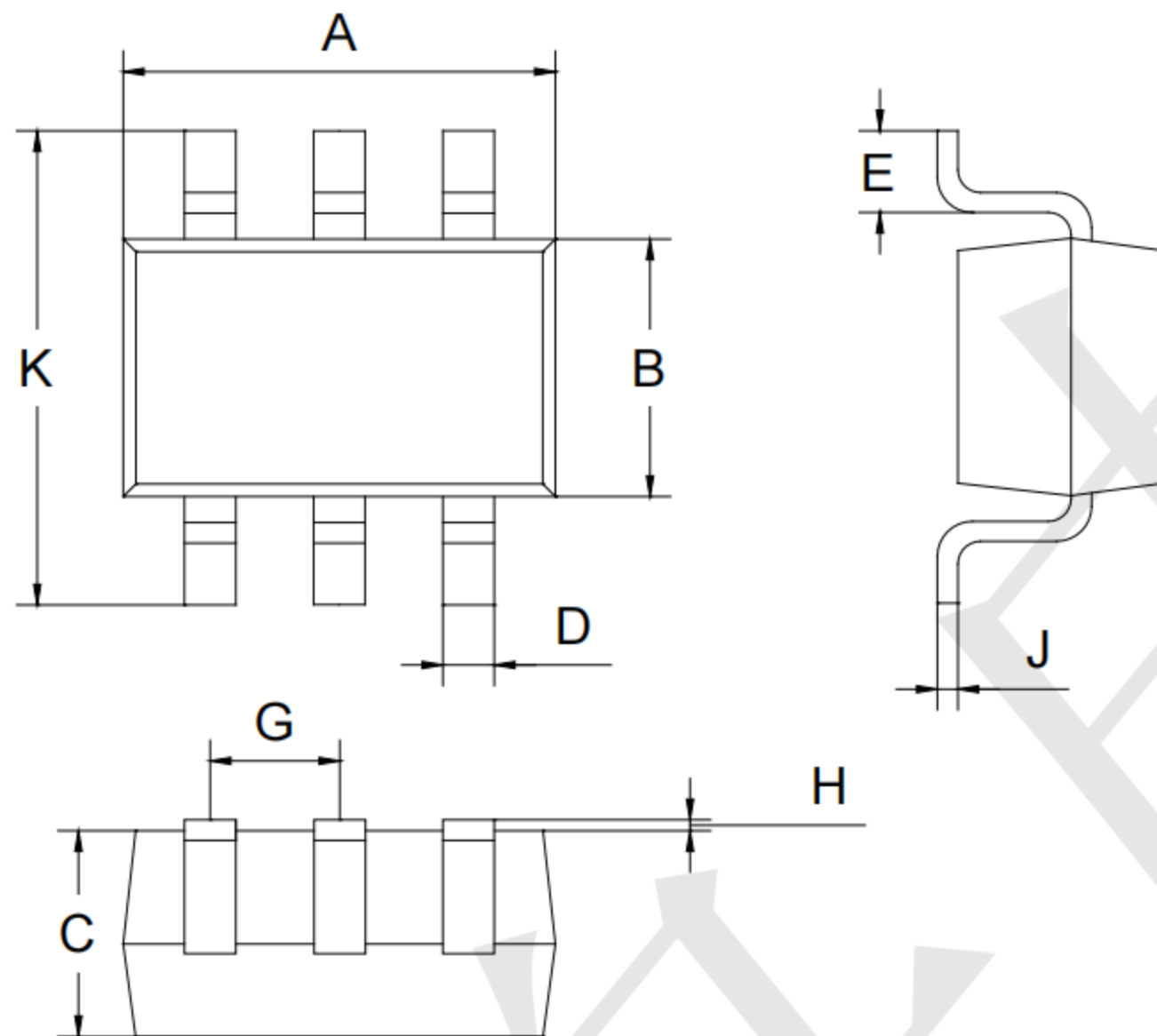
TPMMDT4401

NPN+NPN Plastic-Encapsulate Transistors

www.sot23.com.tw



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)

