



Features

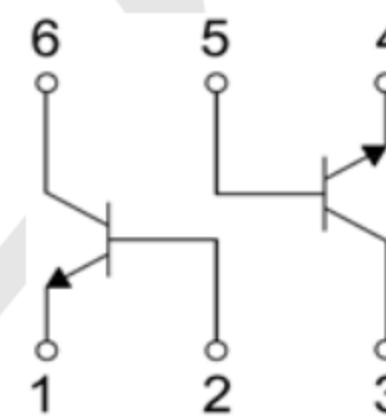
- Complementary PNP Type available TPMMDT2907A

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	75	V
V _{CEO}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	600	mA
P _C	Collector Power Dissipation	200	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C



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

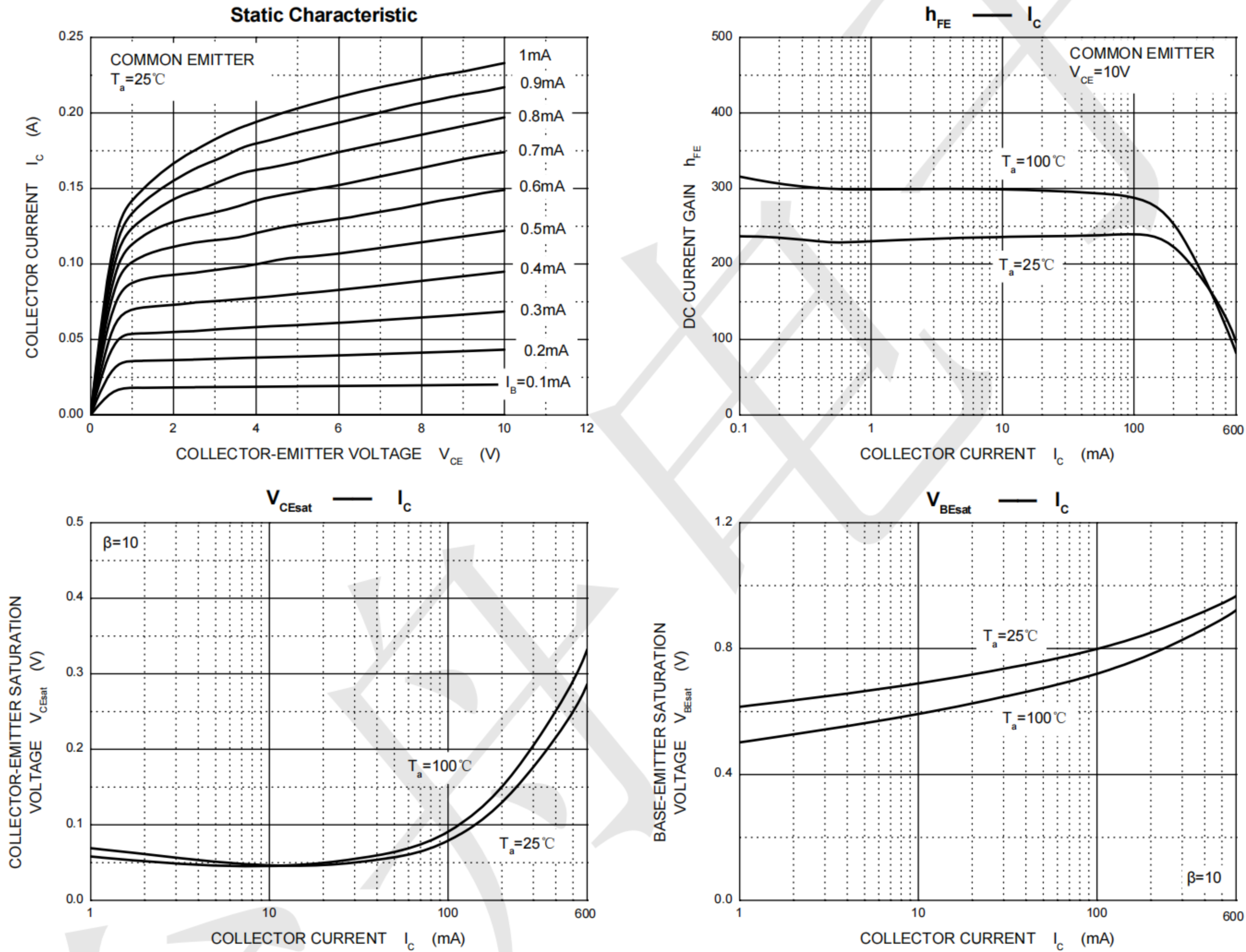
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	75		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$		10	nA
Collector cut-off current	I_{CEX}	$V_{CE} = 60V, V_{EB(off)} = 3V$		10	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3V, I_C = 0$		10	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = 10V, I_C = 0.1mA$	35		
	$h_{FE(2)}$	$V_{CE} = 10V, I_C = 1mA$	50		
	$h_{FE(3)}$	$V_{CE} = 10V, I_C = 10mA$	75		
	$h_{FE(4)}$	$V_{CE} = 10V, I_C = 150mA$	100	300	
	$h_{FE(5)}$	$V_{CE} = 10V, I_C = 500mA$	40		
	$h_{FE(6)}$	$V_{CE} = 1V, I_C = 150mA$	35		
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = 150mA, I_B = 15mA$		0.3	V
	$V_{CE(sat)2}$	$I_C = 500mA, I_B = 50mA$		1	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = 150mA, I_B = 15mA$	0.6	1.2	V
	$V_{BE(sat)2}$	$I_C = 500mA, I_B = 50mA$		2	V
Transition frequency	f_T	$V_{CE} = 20V, I_C = 20mA, f = 100MHz$	300		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		8	pF
Input Capacitance	C_{ib}	$V_{EB} = 0.5V, I_C = 0, f = 1MHz$		25	pF
Noise Figure	NF	$V_{CE} = 10V, I_C = 100\mu A, f = 1KHz, R_s = 1K\Omega$		4	dB

Switching characteristics

Parameter	Symbol	Test conditions	Min	Max	Unit
Delay time	t_d	$V_{CC} = 30V, I_C = 150mA, V_{BE(off)} = 0.5V, I_{B1} = 15mA$		10	ns
Rise time	t_r			25	ns
Storage time	t_s	$V_{CC} = 30V, I_C = 150mA, I_{B1} = -I_{B2} = 15mA$		225	ns
Fall time	t_f			60	ns

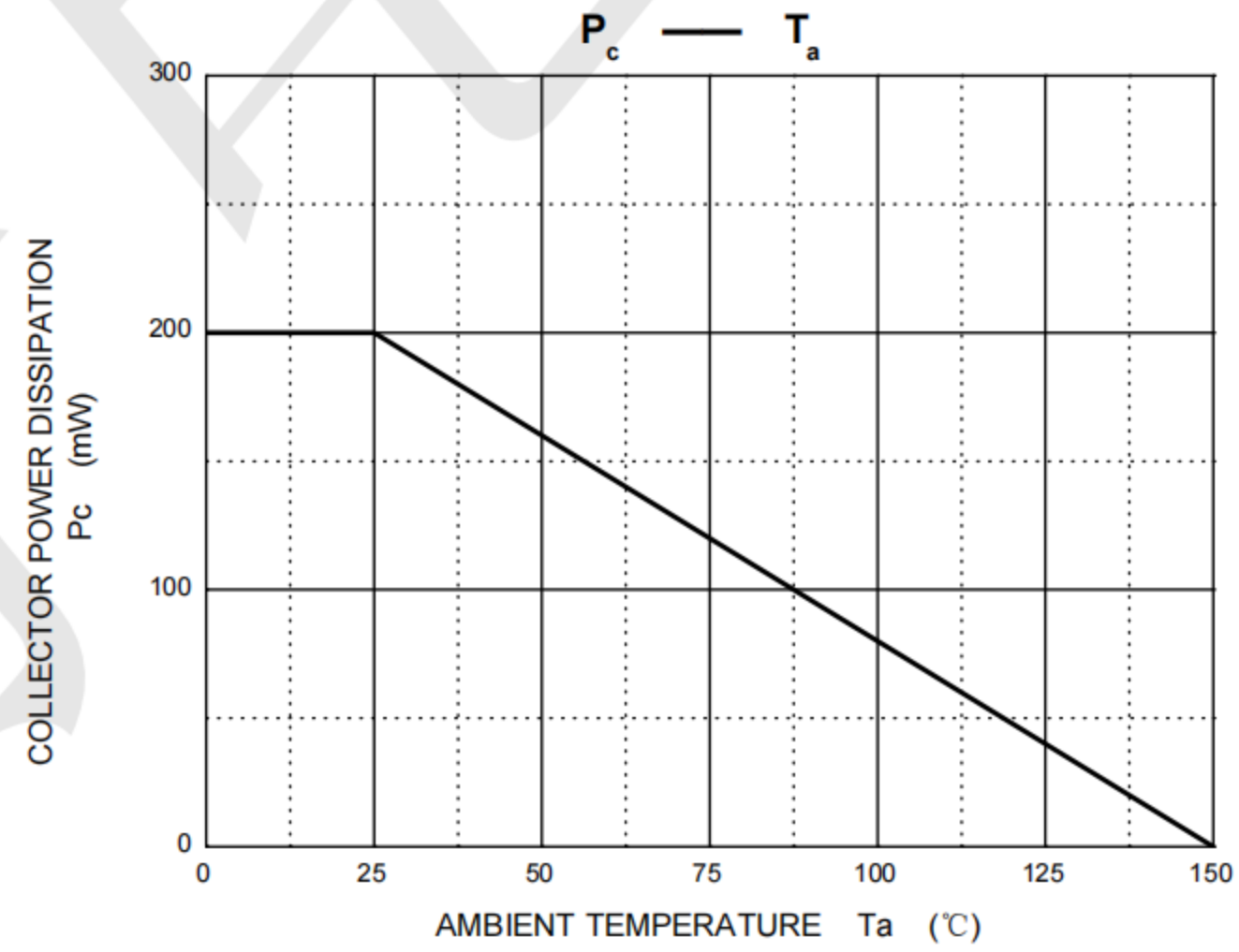
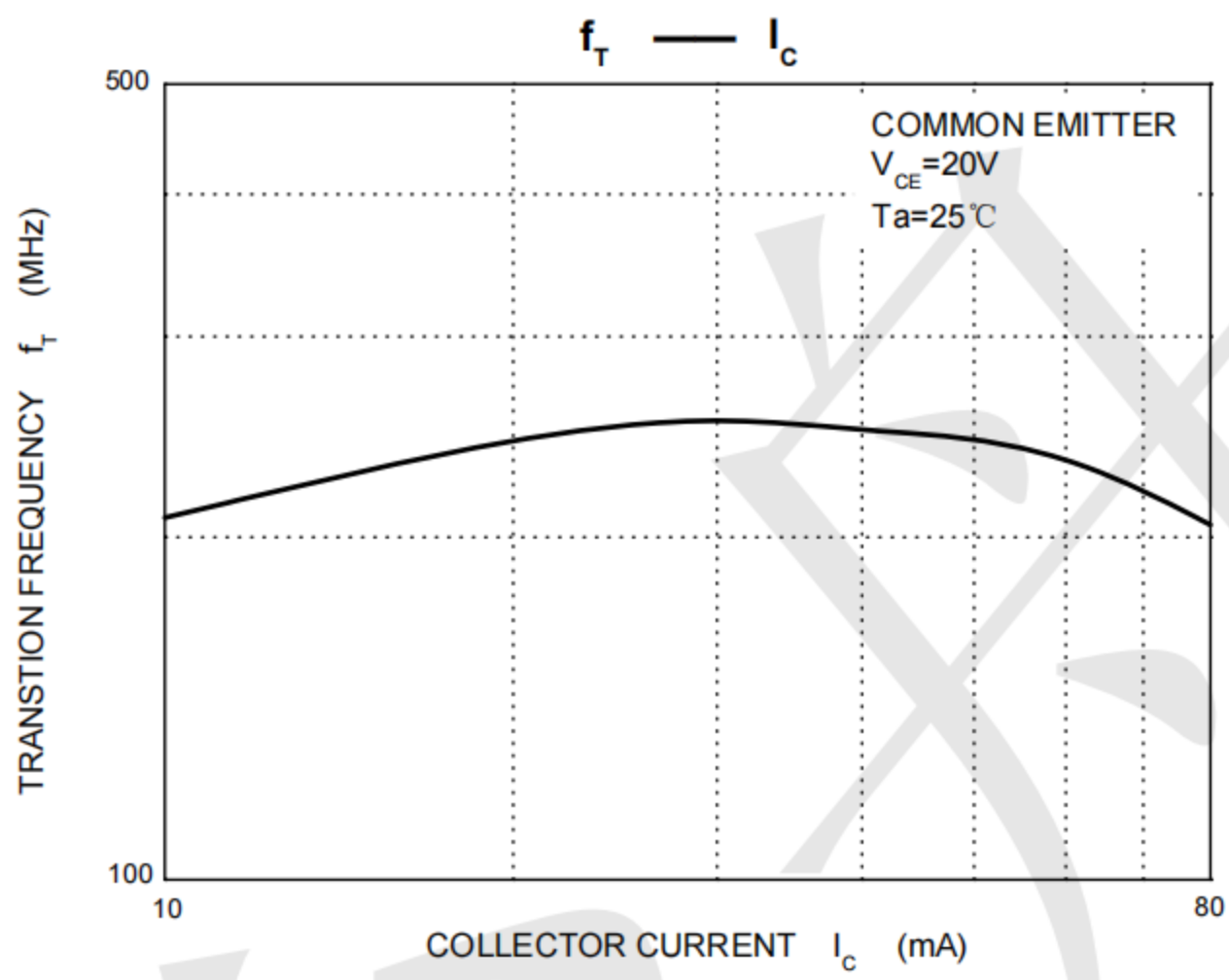
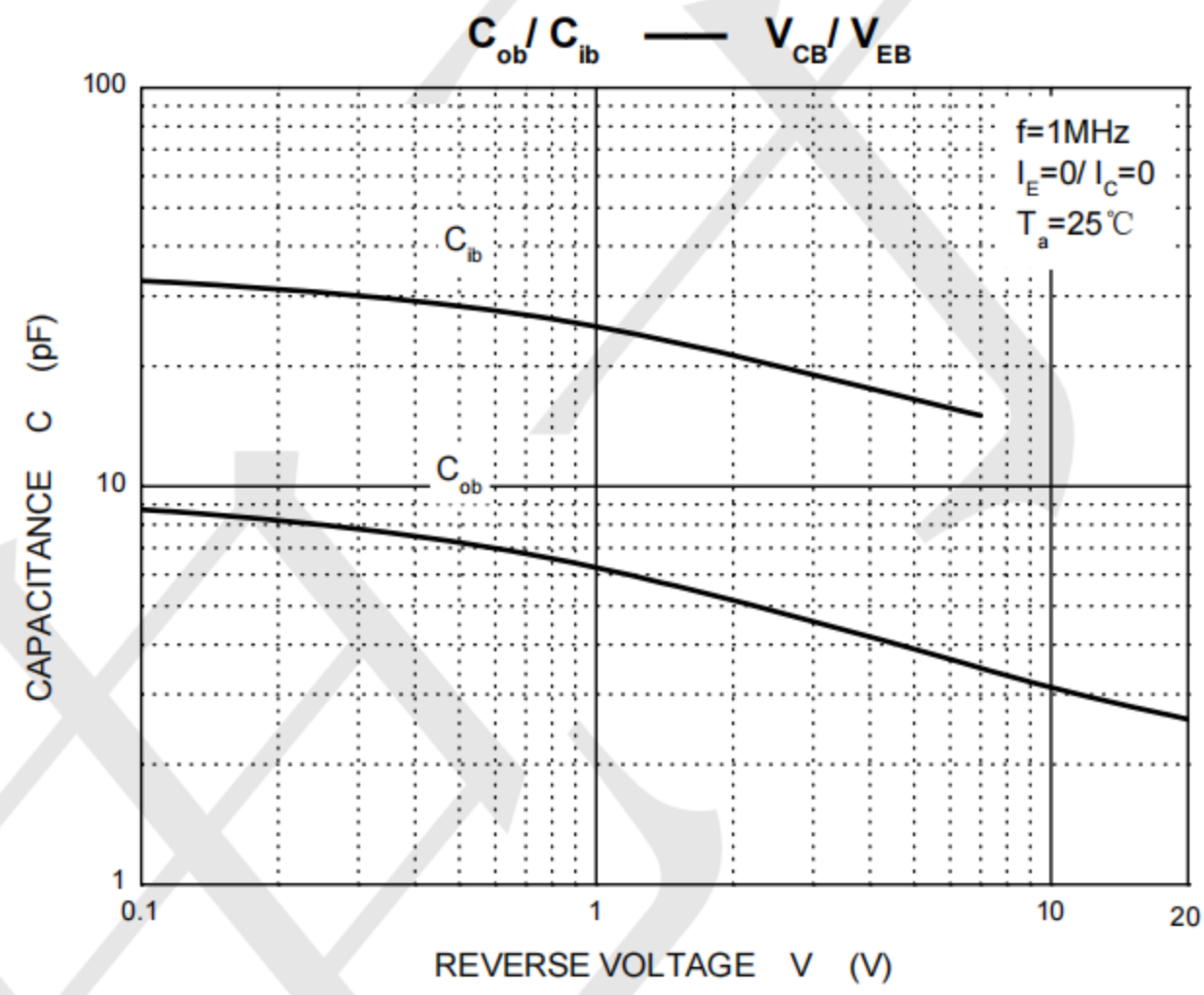
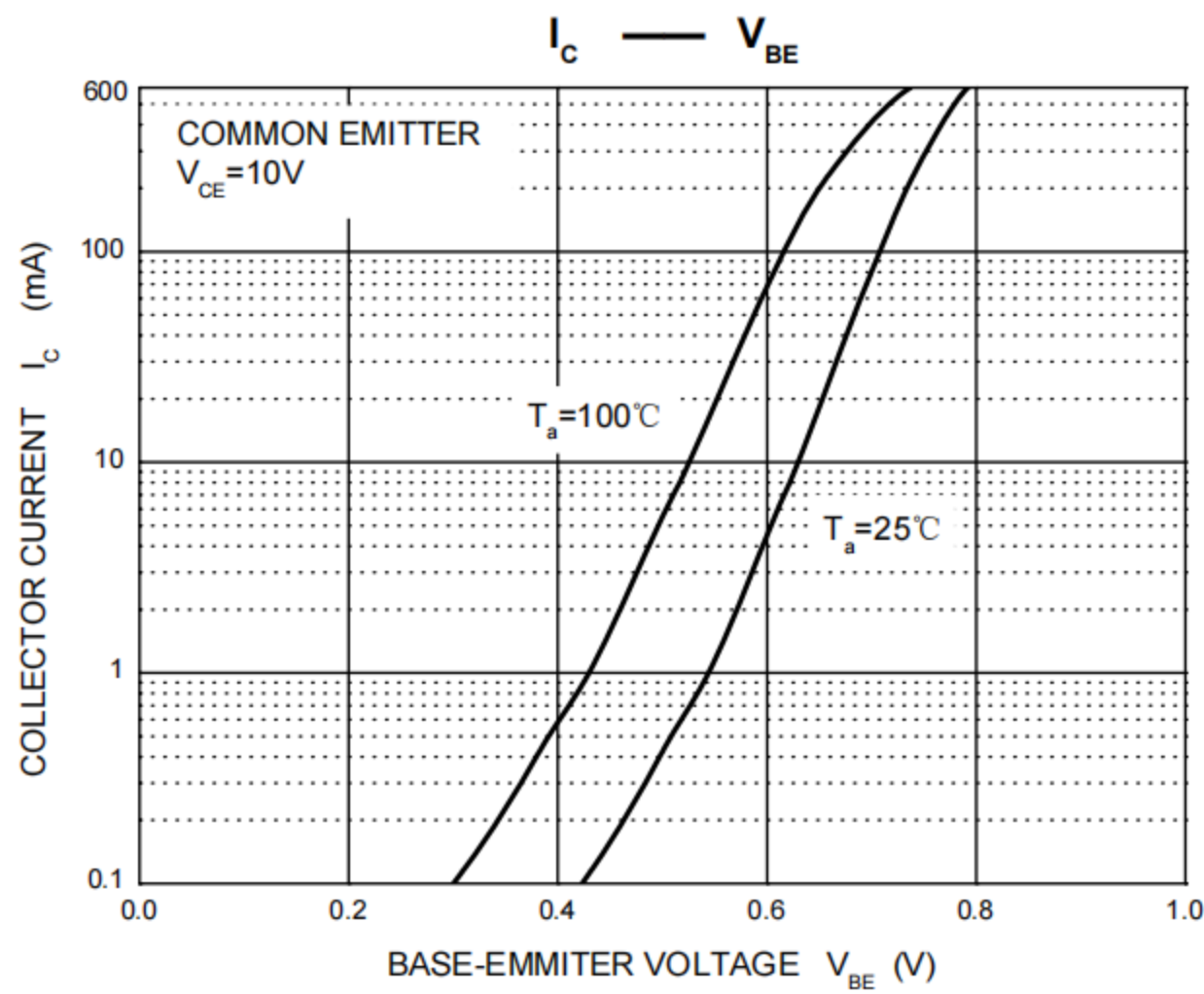


Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



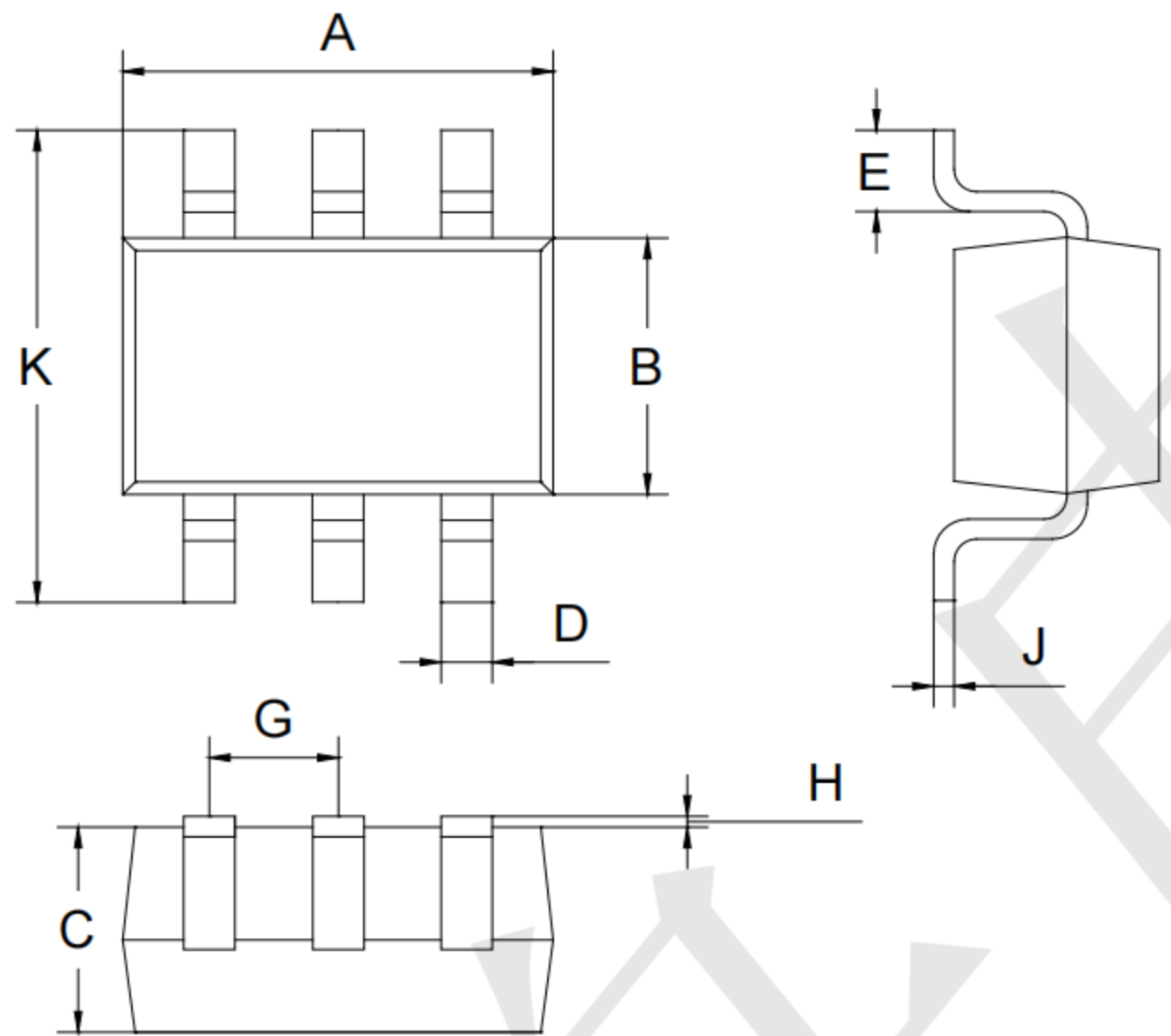


Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)





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)

