

Features

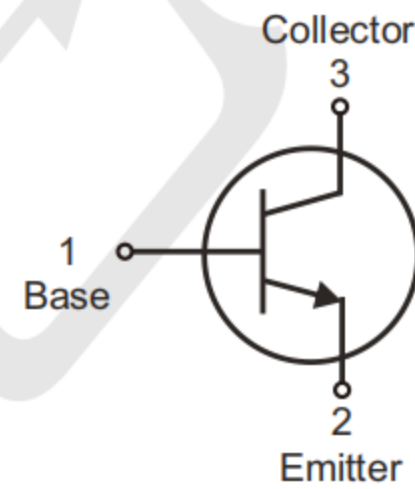
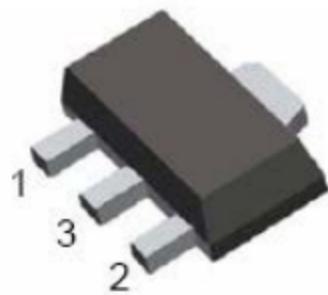
- Switching and amplification in high voltage
Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.180V)

Ordering Information

- Shipping Qty:1000 /7inch Tape& Reel

Circuit Diagram

SOT-89



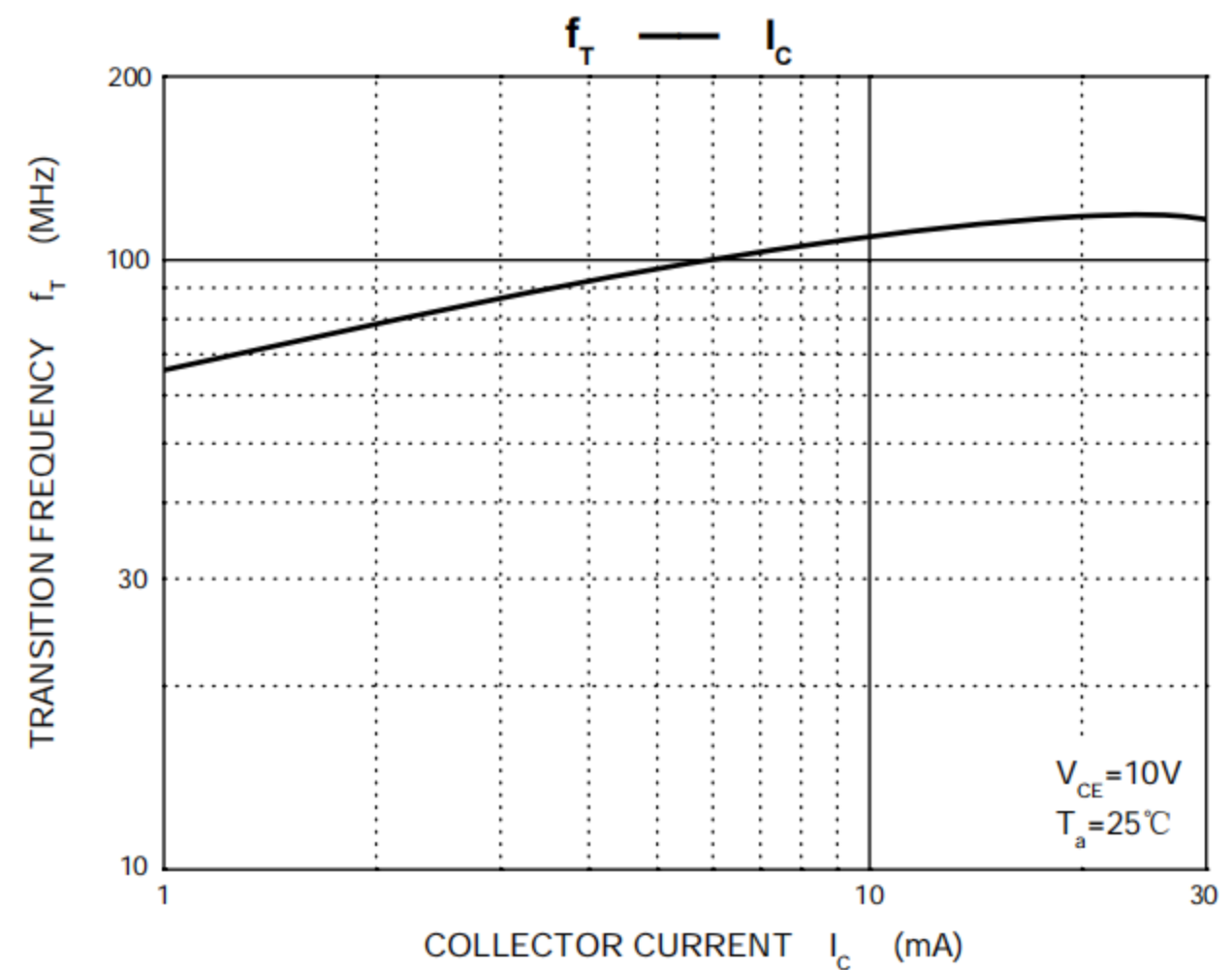
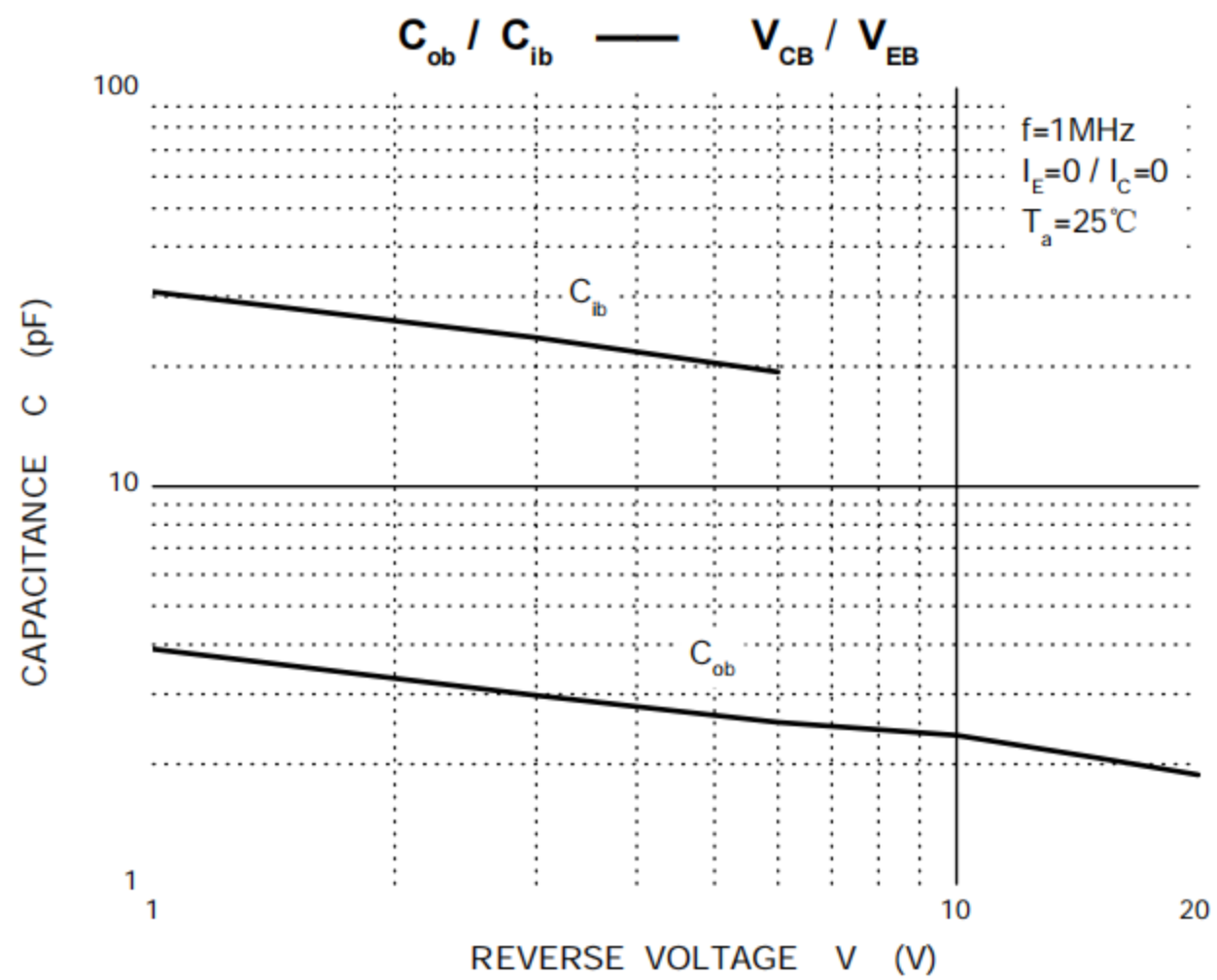
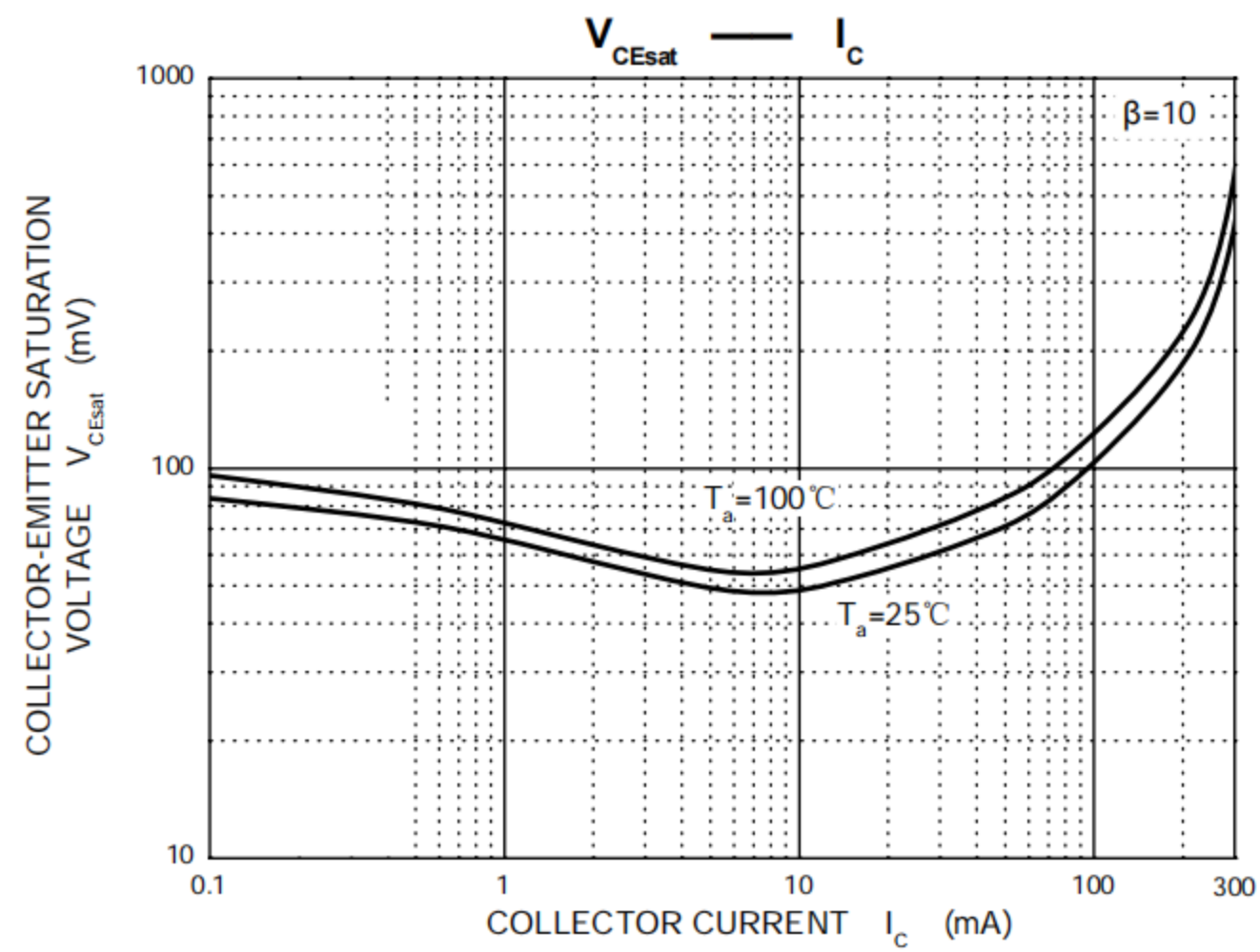
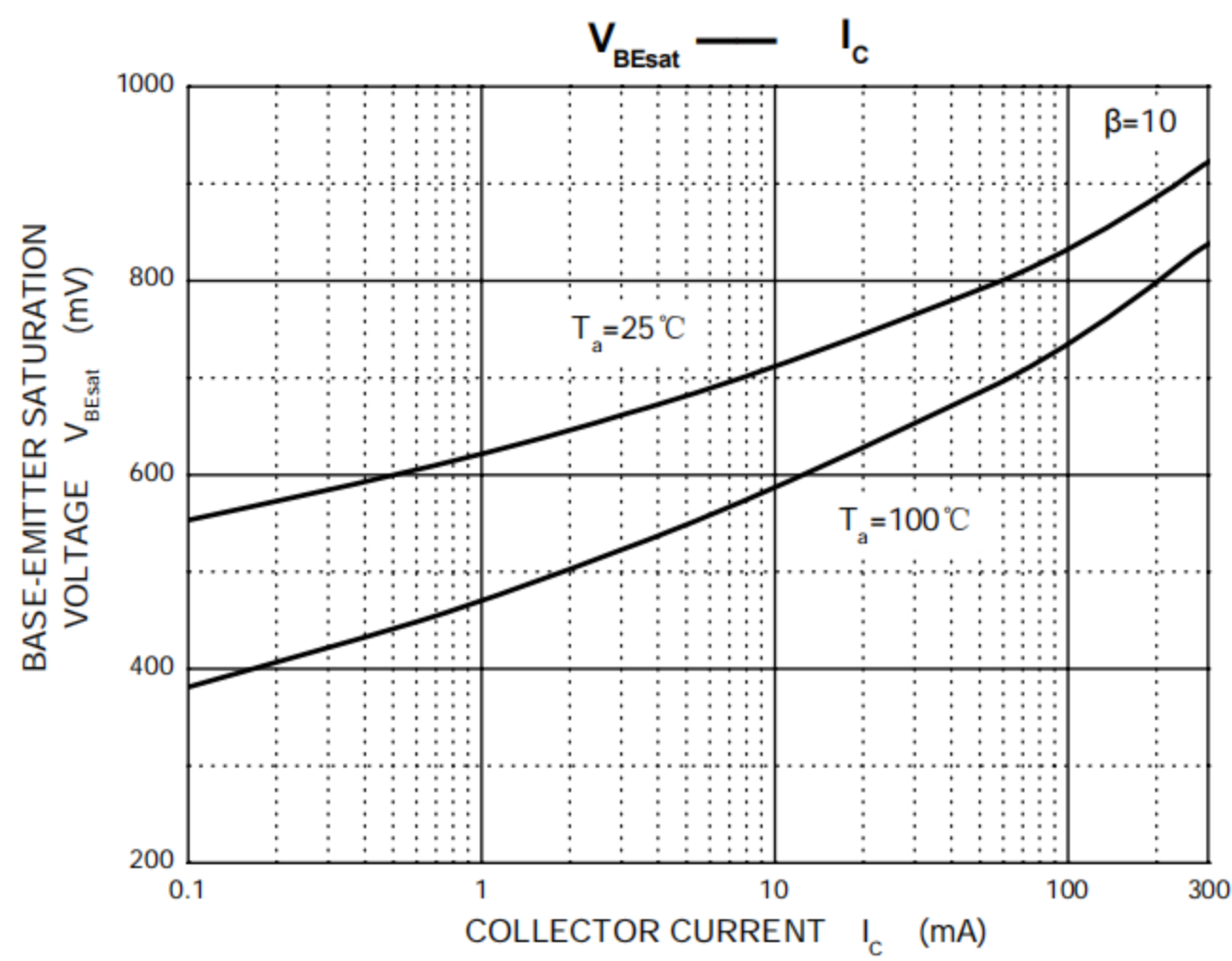
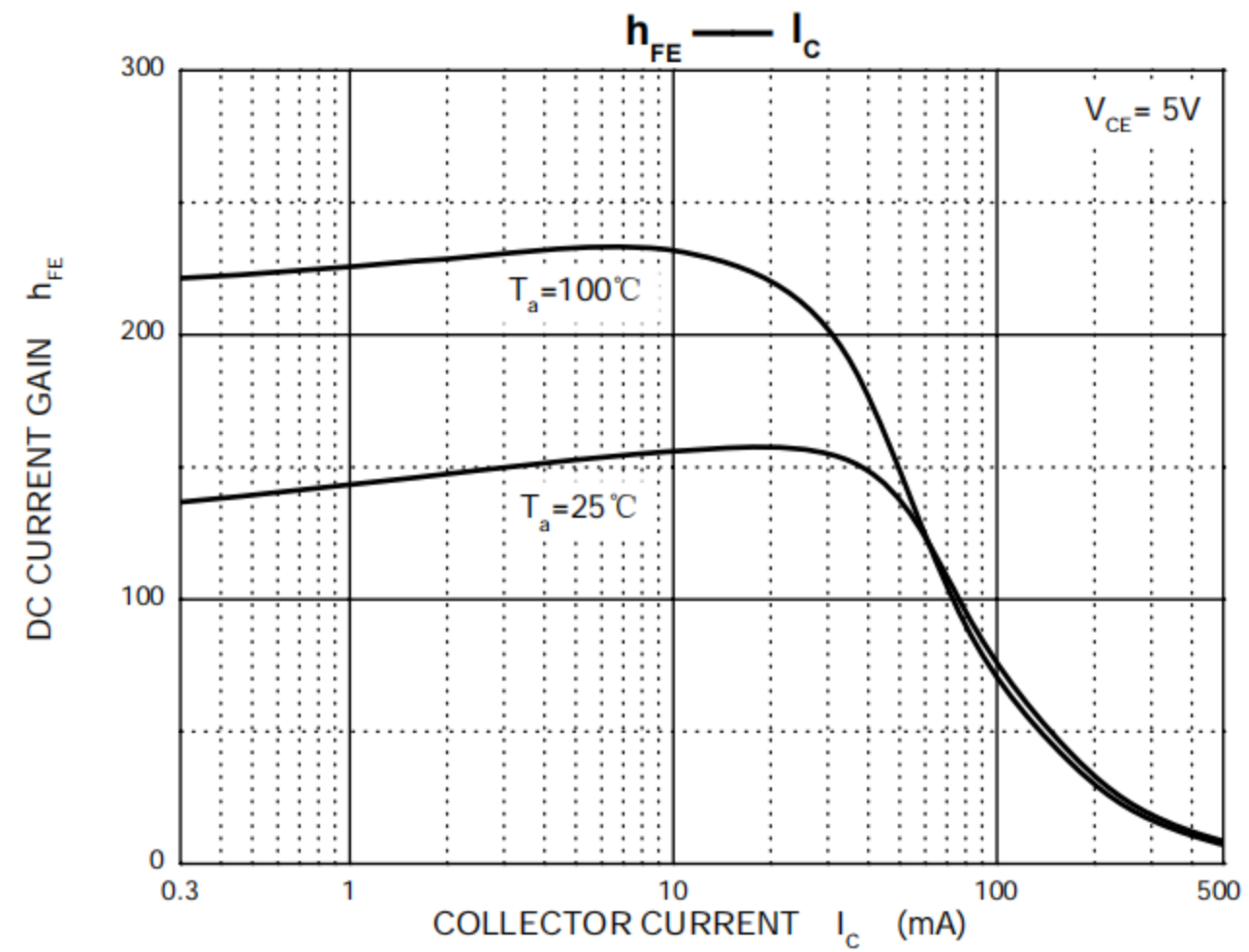
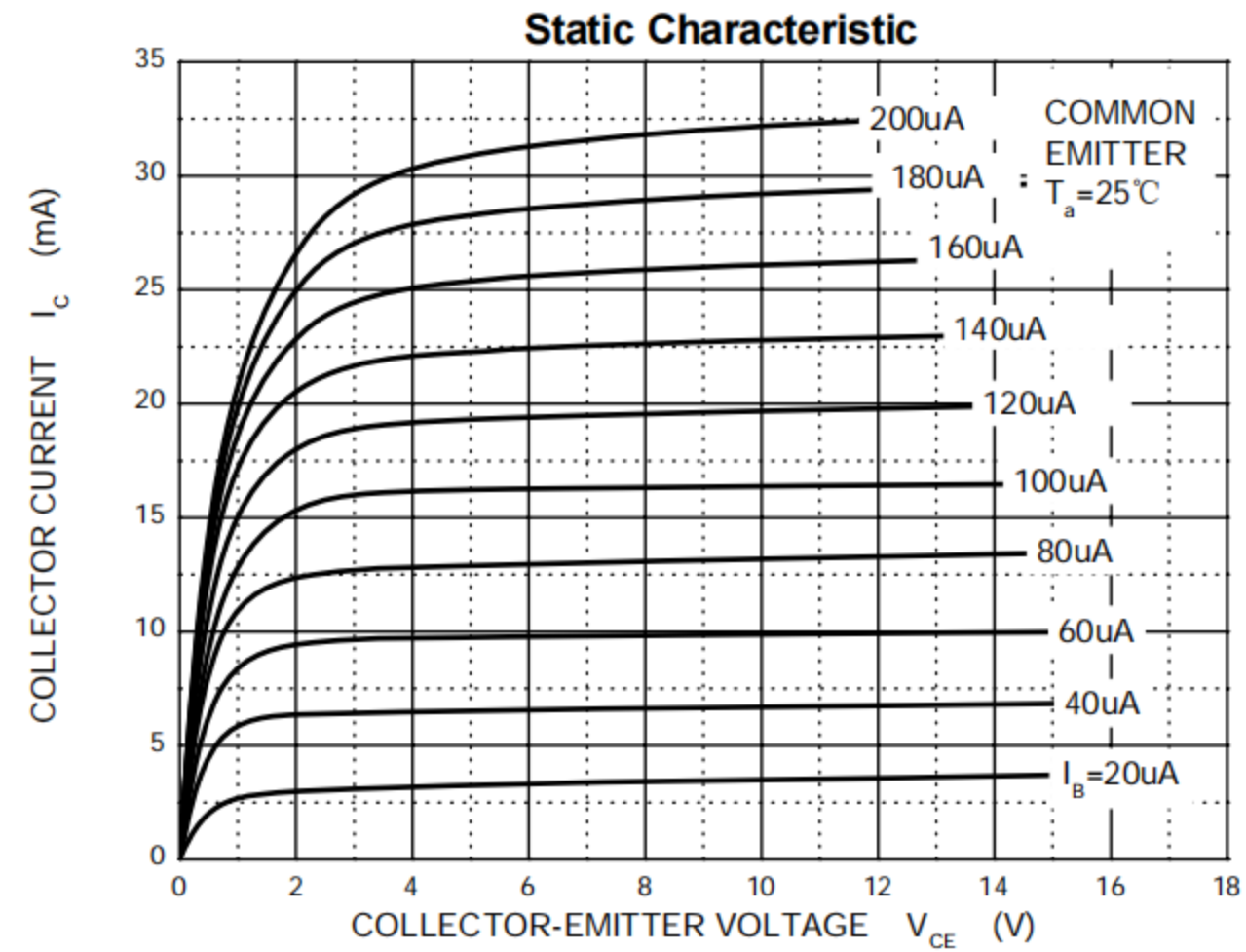
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
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	0.6	A
P_C	Collector Power Dissipation	0.5	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~150	°C

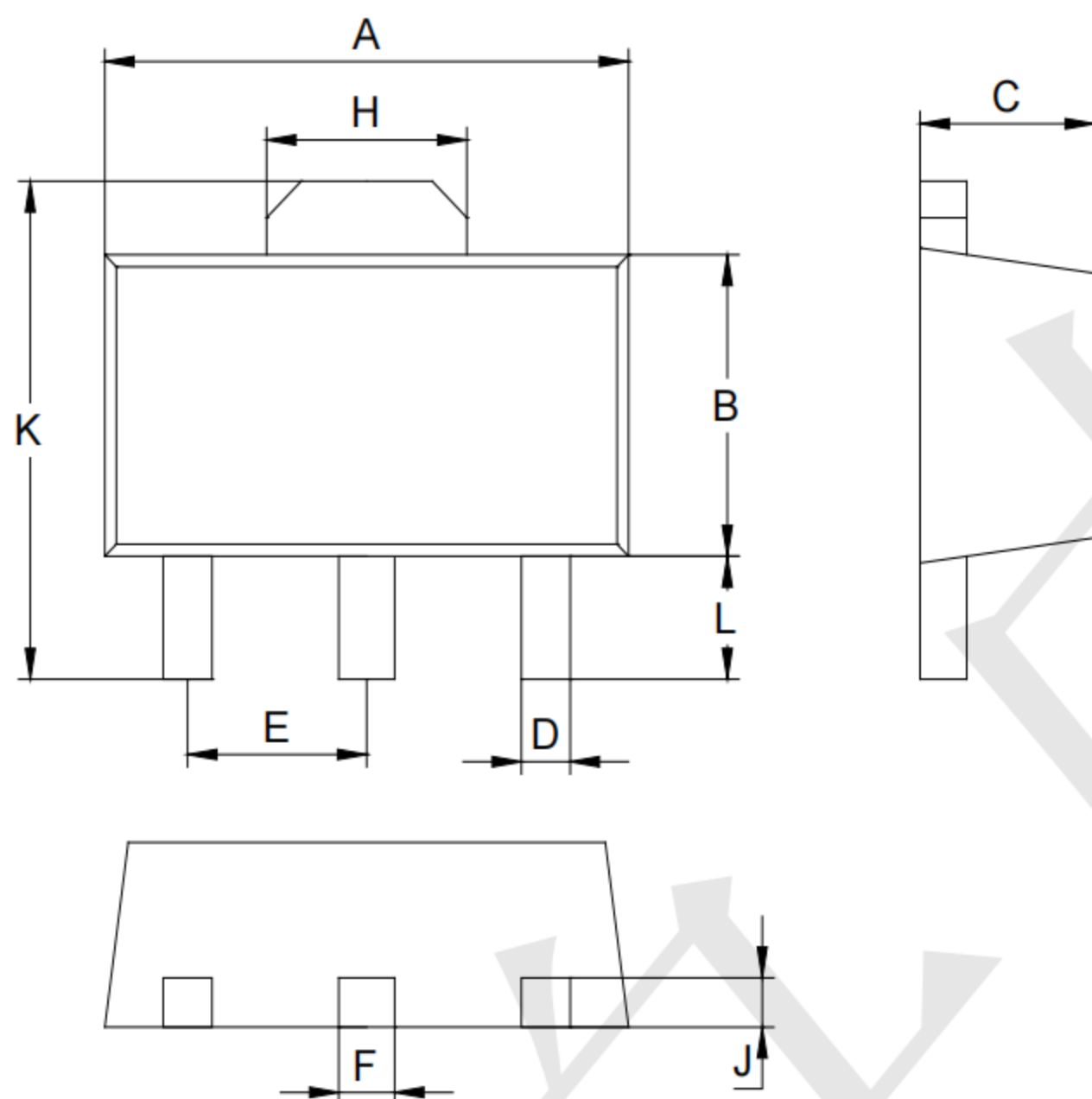
Electrical Characteristics (TA=25°C unless otherwise specified)

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}	$V_{CB}=120V, I_E=0$			50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			50	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=1mA$	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	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.15	V
	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.2	V
Base-emitter voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$			1	V
	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$			1	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA, f=100MHz$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			6	pF
Noise figure	NF	$V_{CE}=5V, I_C=0.2mA,$ $f=10Hz$ to $15.7KHz, R_s=10\Omega$			8	dB

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

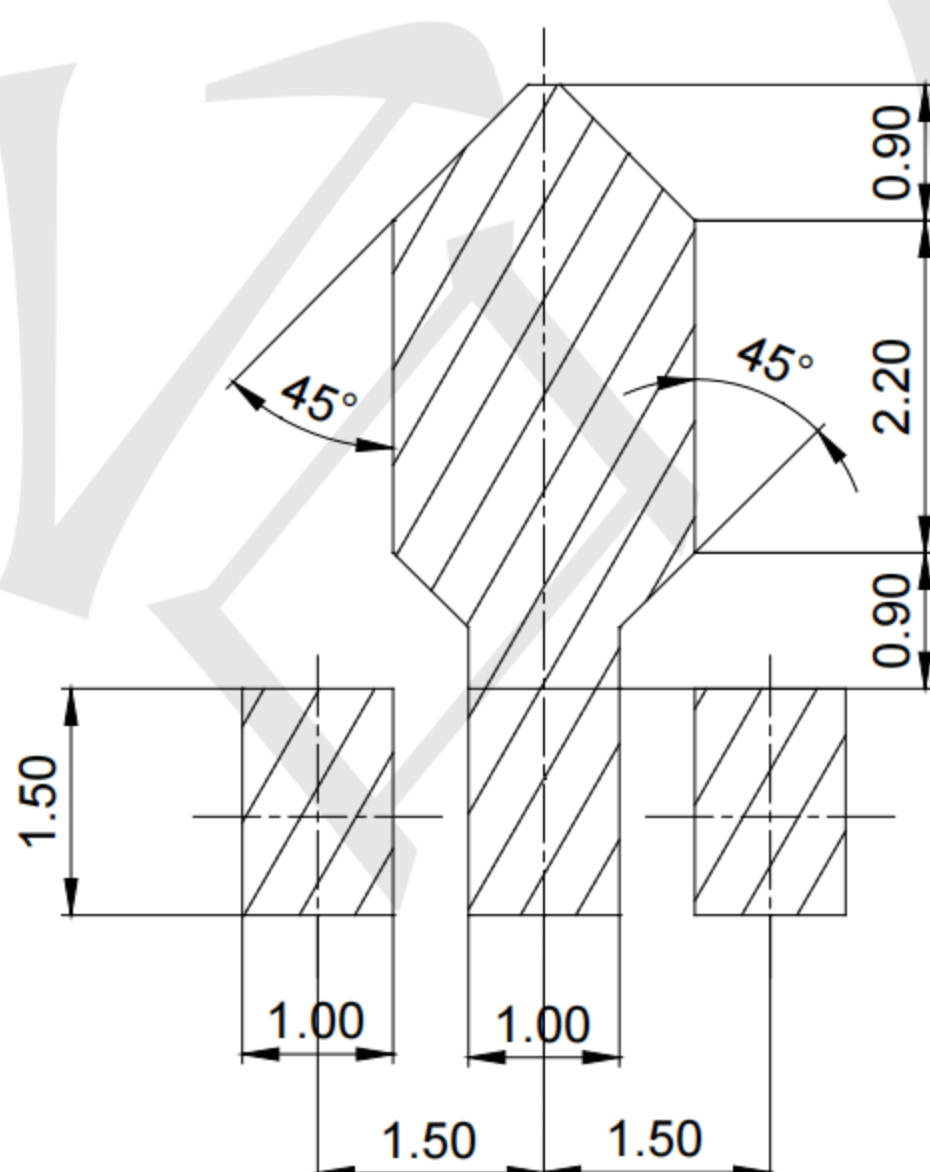


Outline Drawing - SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.30	1.70
D	0.30	0.50
E	1.40	1.60
F	0.38	0.58
H	1.60	1.80
J	0.30	0.50
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

Land Pattern - SOT-89



Unit: mm