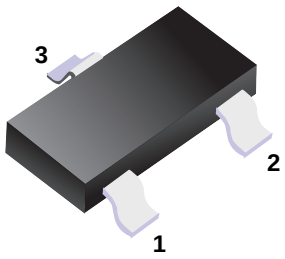
2SC2412K

NPN Transistors



1.Base
2.Emitter
3.Collector

■ Simplified outline(SOT-23)

■ Features

● Low C_{ob}.C_{ob}=2.0pF (Typ.)

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	0.15	A
Collector power dissipation	P_C	0.2	W
Junction temperature	Tj	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

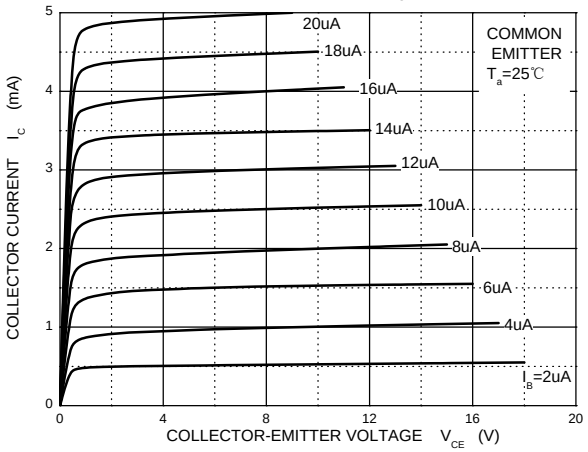
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 50 μA， I_E= 0	60			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA， I_B= 0	50			
Emitter - base breakdown voltage	V_{EBO}	I_E= 50 μ A， I_C= 0	7			
Collector-base cut-off current	I_{CBO}	V_{CB}= 60 V , I_E= 0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}= 7V , I_C=0			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50 mA, I_B=5mA			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=50 mA, I_B=5mA			1.2	
DC current gain	h_{FE}	V_{CE}= 6V, I_C= 1mA	120		560	
Collector output capacitance	C_{ob}	V_{CB}= 12V, I_E= 0,f=1MHz		2	3.5	pF
Transition frequency	f_T	V_{CE}= 12V, I_E = -2mA,f=100MHz	80			MHz

■ h_{FE} Classification

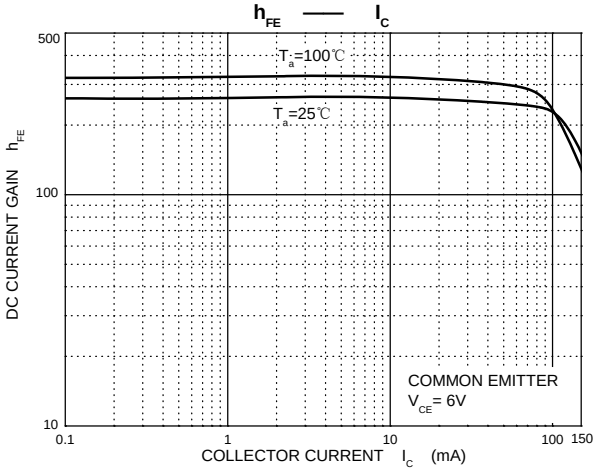
Type	2SC2412K-Q	2SC2412K-R	2SC2412K-S
Range	120-270	180-390	270-560
Marking	BQ	BR	BS

Typical Characteristics

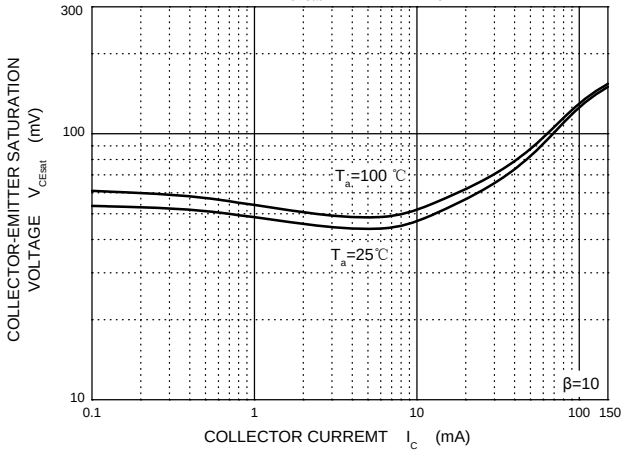
V_{CE} —— I_C



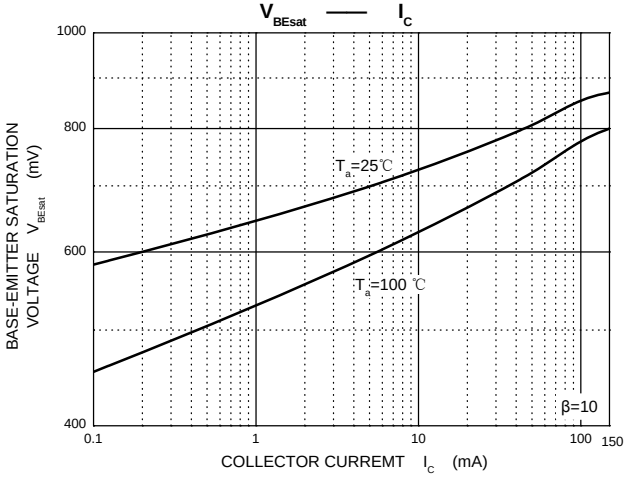
h_{FE} —— I_C



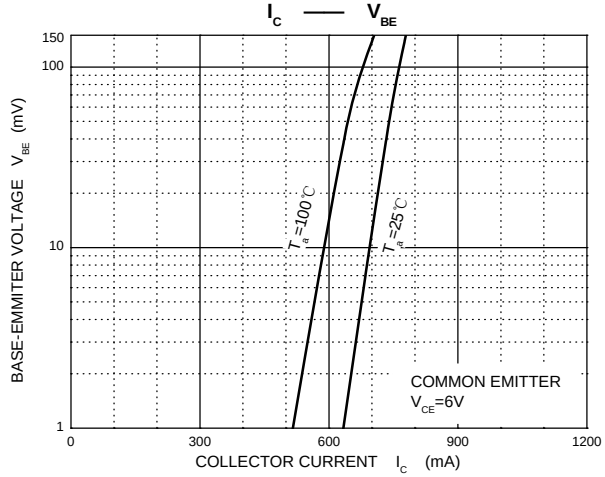
V_{CEsat} —— I_C



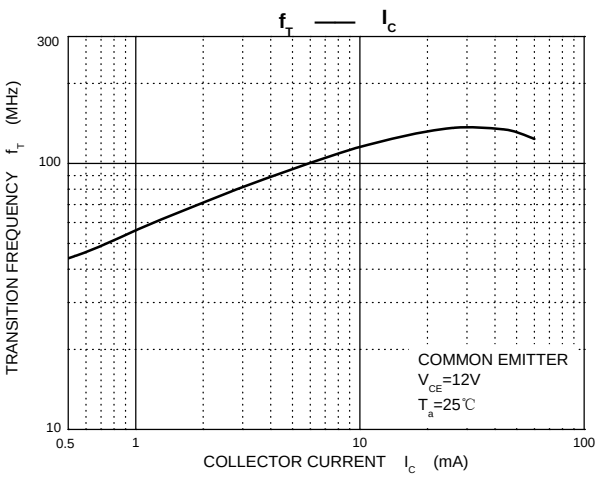
V_{BEsat} —— I_C



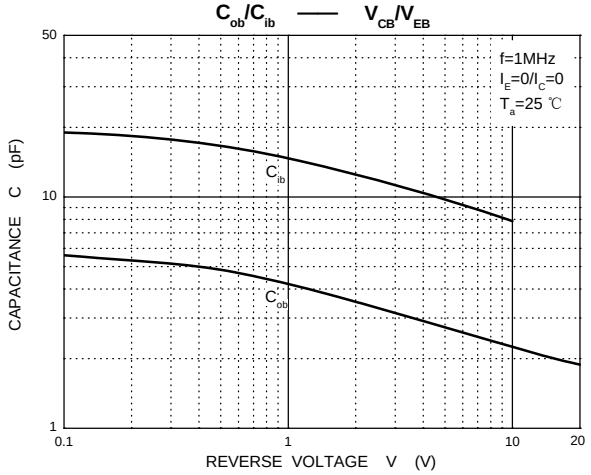
I_C —— V_{BE}



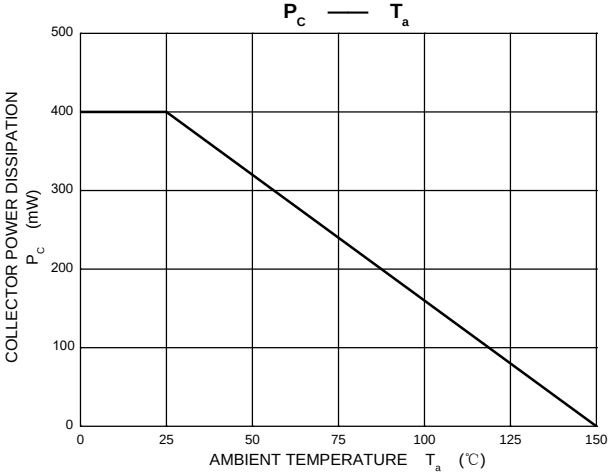
f_T —— I_C



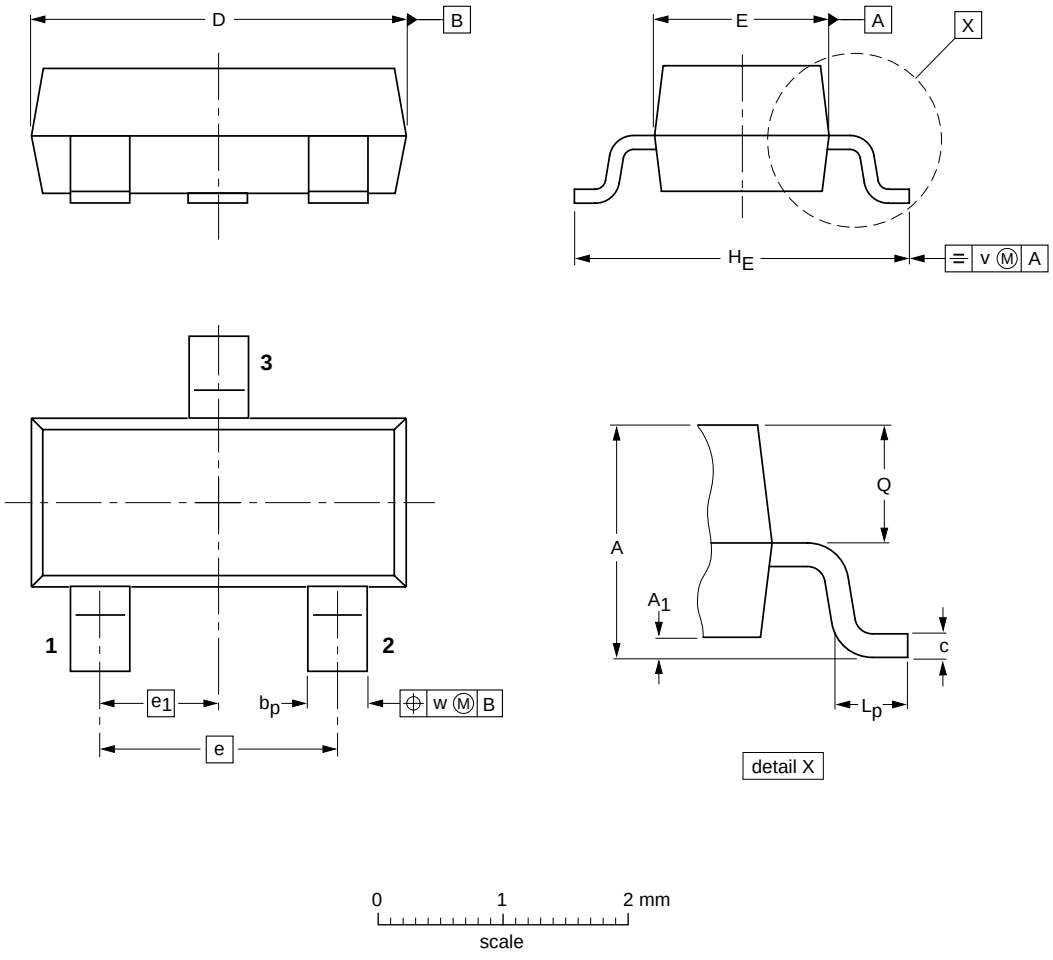
C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a



■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A_1 max.	b_p	c	D	E	e	e_1	H_E	L_p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1