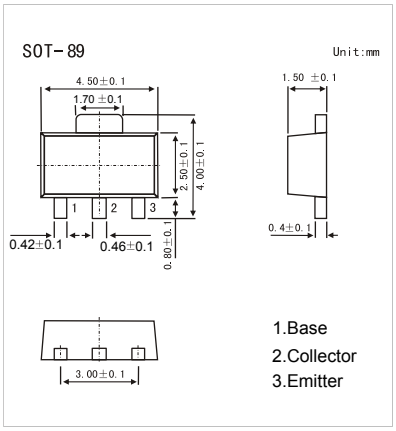
NPN Transistors

PXT2222A (KXT2222A)



■ Features

- Epitaxial planar die construction
- Complementary to PXT2907A

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	75	V
Collector - Emitter Voltage	V_{CEO}	40	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	600	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	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= 100 μA, I_E= 0	75			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 10 mA, I_B= 0	40			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	6			
Collector-base cut-off current	I_{CBO}	V_{CB}= 60 V , I_E= 0			50	nA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500 mA, I_B=50mA			1	V
		I_C=500 mA, I_B=15mA			0.3	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=500 mA, I_B=50mA			2	
		I_C=500 mA, I_B=15mA		0.6	1.2	
	$h_{FE(1)}$	V_{CE}= 10V, I_C= 0.1mA	50			
	$h_{FE(2)}$	V_{CE}= 10V, I_C= 10mA	75			
	$h_{FE(3)}$	V_{CE}= 10V, I_C= 150mA	100		300	
	$h_{FE(4)}$	V_{CE}= 1V, I_C= 150mA	50			
	$h_{FE(5)}$	V_{CE}= 10V, I_C= 500mA	40			
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	
Storage time	t_s	V_{CC}=30V, I_C=150mA I_{B1}=- I_{B2}= 15mA			225	
Fall time	t_f				60	
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz			8	pF
Transition frequency	f_T	V_{CE}= 10V, I_C= 20mA,f=100MHz	300			MHz

■ Marking

Marking	*1P

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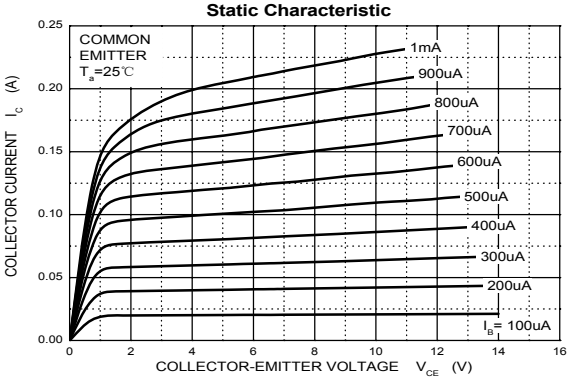
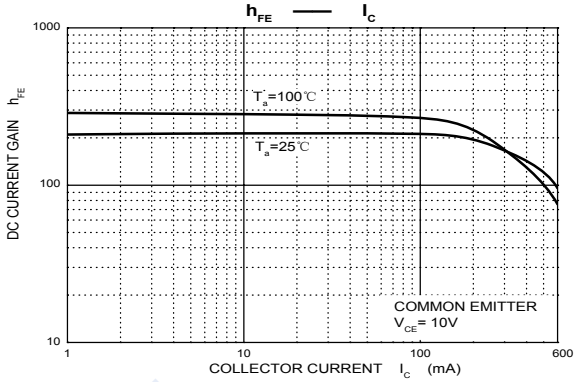
■ Typical Characterisitics

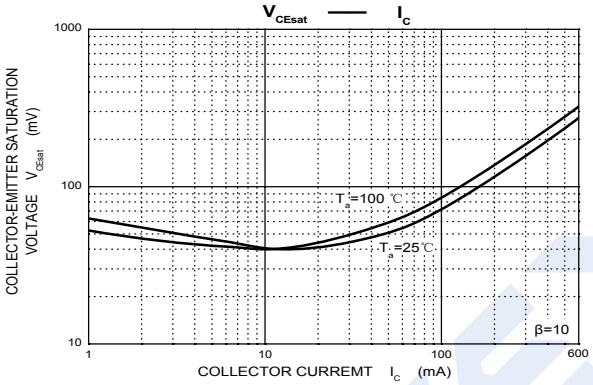
Static Characteristic



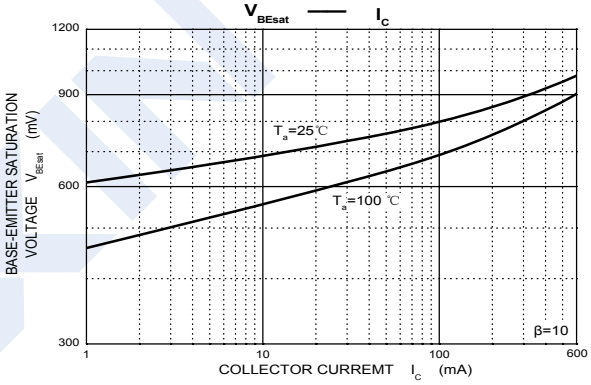
hFE — IC



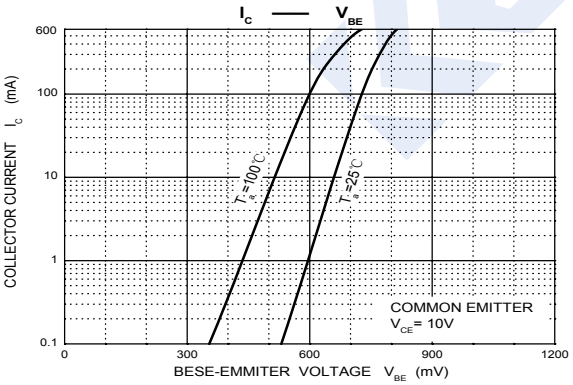
VCEsat — IC



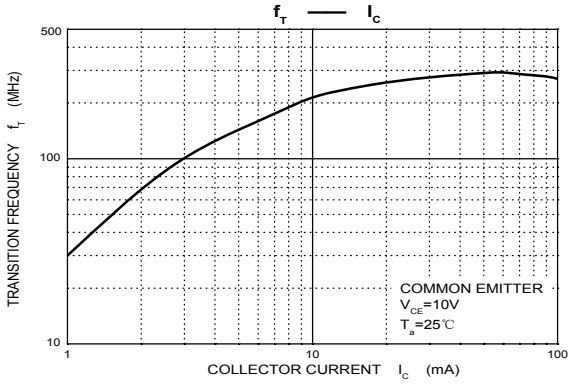
VBEsat — IC



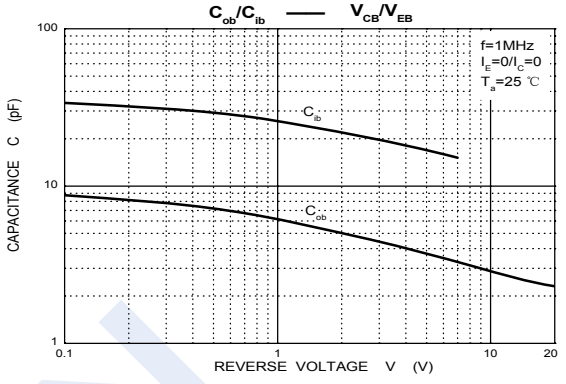
IC — VBE



fT — IC



Cob/Cib — VCB/VEB



PC — Ta