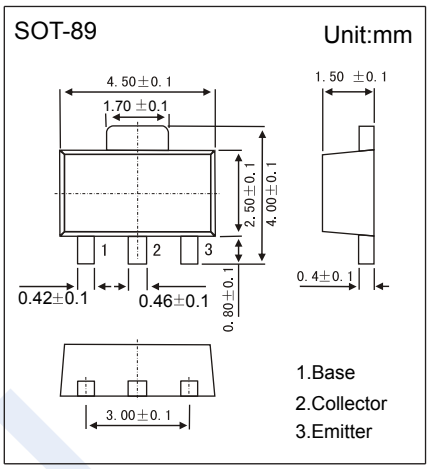
NPN Transistors

PXT3904 (KXT3904)



■ Features

- Collector Current Capability I_C=0.2A
- Collector Emitter Voltage V_{CEO}=40V
- Compliment to PXT3906

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	60	V
Collector - Emitter Voltage	V_{CEO}	40	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	0.2	A
Collector Power Dissipation	P_C	0.5	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

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■ 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	60			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 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}= 30 V , I_E= 0			50	nA
Collector- emitter cut-off current	I_{CEX}	V_{CE}= 30 V , $V_{BE(off)}$= 3V			50	
Emitter cut-off current	I_{EBO}	V_{EB}= 6V , I_C=0			50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10 mA, I_B=1mA			0.2	V
		I_C=50 mA, I_B=5mA			0.3	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=10 mA, I_B=1mA	0.65		0.85	
		I_C=50 mA, I_B=5mA			0.95	
DC current gain	h_{FE}	V_{CE}= 1V, I_C= 0.1mA	60			
		V_{CE}= 1V, I_C= 1mA	80			
		V_{CE}= 1V, I_C= 10mA	100		300	
		V_{CE}= 1V, I_C= 50mA	60			
		V_{CE}= 1V, I_C= 100mA	30			
Noise figure	NF	V_{CE}=5V,I_C=0.1mA,f=10Hz~15.7kHz, R_S=1KΩ			5	dB
Delay time	t_d	I_C=10mA , I_{B1}=-I_{B2}= 1mA			35	ns
Rise time	t_r				35	
Storage time	t_s				200	
Fall time	t_f				50	
Collector output capacitance	C_{ob}	V_{CB}= 5V, I_E= 0,f=1MHz			4	pF
Emitter capacitance	C_e	V_{EB}=0.5V,I_C=0,f=1MHz			8	
Transition frequency	f_T	V_{CE}= 20V, I_C= 10mA,f=100MHz	300			MHz

■ Marking

Marking	1A