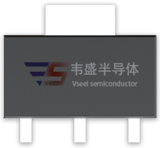
PXT3904 TRANSISTOR (NPN)



1.BASE

2.COLLECTOR

3.EMITTER

SOT-89

FEATURES

- Compliment to PXT3906
- Low current
- Low voltage

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

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

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=30V,I_E=0			0.05	μA
Emitter cut-off current	I_{EBO}	V_{EB}=6V,I_C=0			0.05	μA
Collector ut-off current	I_{CEX}	V_{CE}=30V,$V_{BE(off)}$=3V			0.05	μA
DC current gain	$h_{FE(1)}$	V_{CE}=1V,I_C=0.1mA	60			
	$h_{FE(2)}$	V_{CE}=1V,I_C=1mA	80			
	$h_{FE(3)}$	V_{CE}=1V,I_C=10mA	100		300	
	$h_{FE(4)}$	V_{CE}=1V,I_C=50mA	60			
	$h_{FE(5)}$	V_{CE}=1V,I_C=100mA	30			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=10mA,I_B=1mA			0.2	V
	$V_{CE(sat)2}$	I_C=50mA,I_B=5mA			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	I_C=10mA,I_B=1mA	0.65		0.85	V
	$V_{BE(sat)2}$	I_C=50mA,I_B=5mA			0.95	V
Transition frequency	f_T	V_{CE}=20V,I_C=10mA,f=100MHz	300			MHz
Collector capacitance	C_c	V_{CB}=5V,I_E=0,f=1MHz			4	pF
Emitter capacitance	C_e	V_{EB}=0.5V,I_C=0,f=1MHz			8	pF
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	ns
Storage time	t_S				200	ns
Fall time	t_f				50	ns