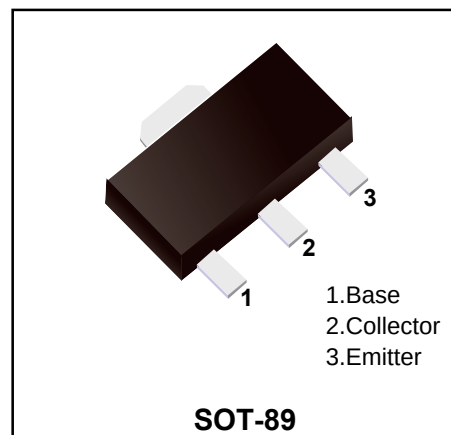


Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

FEATURES

- ◆Compliment to 2N3906SI
- ◆Low current
- ◆Low voltage



Marking Code

PXT3904SI

1A

MAXIMUM RATINGS (Ta=25°C 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	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-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 =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

Ordering information

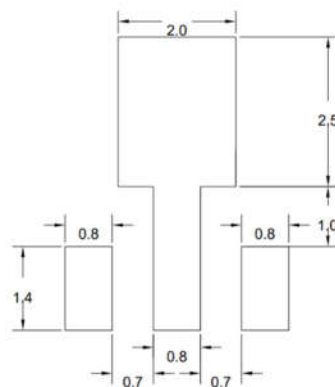
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	3000pcs/Reel	30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

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