SEMICONDUCTOR

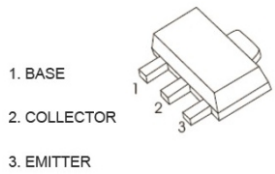
PXT8050

NPN Plastic-Encapsulate Transistors

FEATURES

- Epoxy meets UL-94 V-0 flammability rating
- Complementary to PXT8550
- Power Dissipation of 500mW
- High Stability and High Reliability

SOT-89



MECHANICAL DATA

- Case:SOT-89
- Terminals:Plated solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Marking:Y1

MAXIMUM RATINGS(T_A=25°C Unless otherwise specified)

Item	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	25
Collector-Base Voltage	V_{CBO}	V	40
Emitter-Base Voltage	V_{EBO}	V	5.0
Collector Current, Continuous	I_C	mA	1500
Power Dissipation	P_D	mW	500
Operation Junction Temperature	T_J	℃	-55 to +150
Storage Temperature	T_{STG}	℃	-55 to +150
Thermal resistance From junction to ambient	$R_{\theta JA}$	℃/W	250

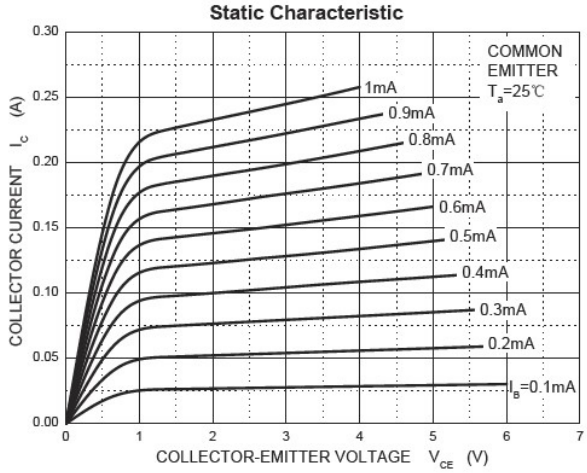
ELECTRICAL CHARACTERISTICS(T_A=25°C Unless otherwise specified)

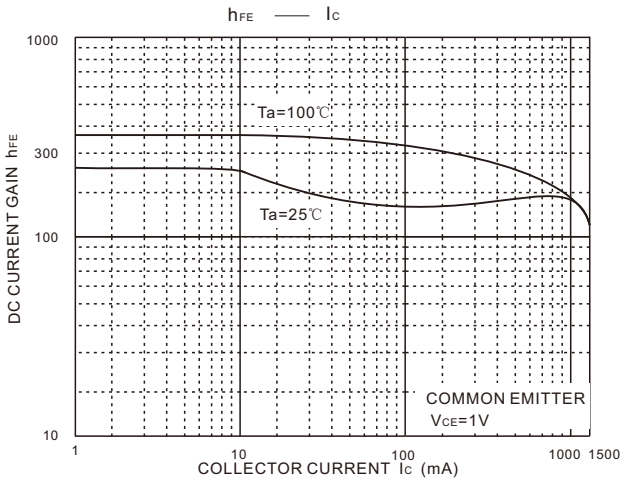
Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	Vdc	I_C=0.1mAdc,I_B=0	25	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	Vdc	I_C=100μAdc,I_E=0	40	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	Vdc	I_E=100μAdc,I_C=0	5.0	---
Collector cut-off Current	I_{CBO}	nAdc	V_{CB}=40Vdc,Ie=0	---	100
Collector cut-off Current	I_{CEO}	nAdc	V_{CE}=20Vdc,Ib=0	---	100
Emitter cut-off Current	I_{EBO}	nAdc	V_{EB}=5Vdc,Ic=0	---	100
DC Current Gain	$h_{FE(1)}$		I_C=100mAdc,V_{CE}=1Vdc	85	400
	$h_{FE(2)}$		I_C=800mAdc,V_{CE}=1Vdc	40	---
Collector-Emitter Saturation Voltage	VCE(set)	Vdc	I_C=800mAdc,I_B=80mAdc	---	0.5
Base-Emitter Saturation Voltage	VBE	Vdc	I_C=800mAdc,I_B=80mAdc	---	1.20
			V_{CE}=1Vdc,I_C=10mAdc	---	1.0
Output Capacitance	Cobo	pF	V_{CB}=10Vdc,f=1.0MHZ,I_E=0	---	15
Input Capacitance	Cibo	pF	V_{EB}=0.5Vdc,f=1.0MHZ,I_C=0	---	---
Current Gain-Bandwidth Product	f_T	MHZ	I_C=50mAdc,V_{CE}=10Vdc f=30MHZ	100	---
Noise Figure	NF	dB	V_{CE}=5.0V,f=1.0kHZ, I_C=100μA, R_S=1. 0K	---	---

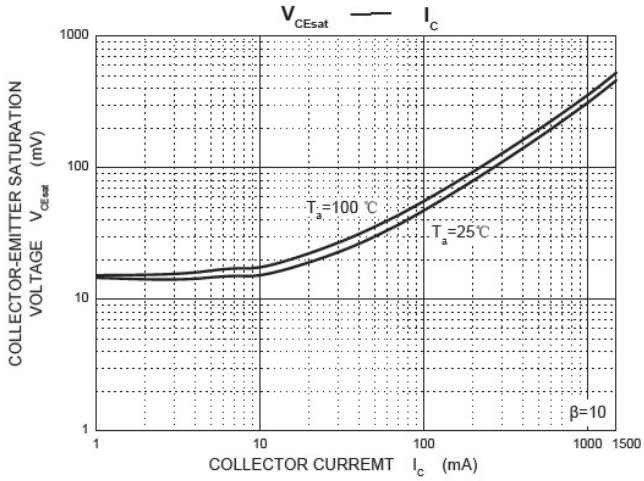
CLASSIFICATION OF $h_{FE(1)}$

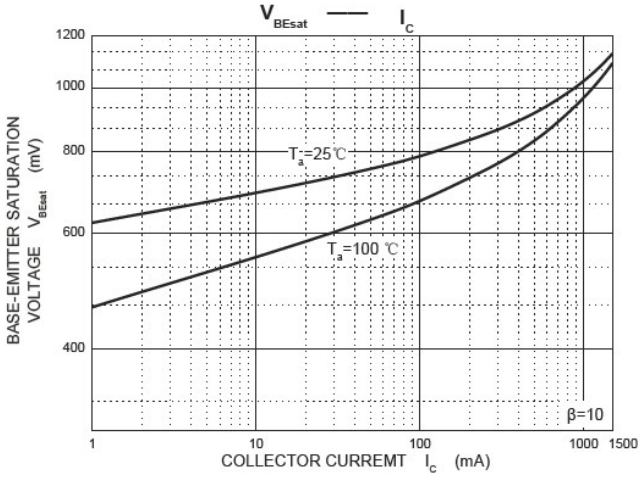
Rank	B	C	D	D3
Range	85–160	120–200	160–300	300–400

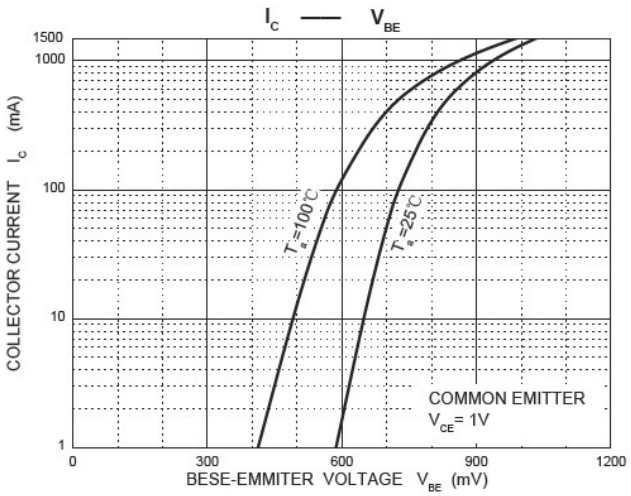
Characteristics(Typical)

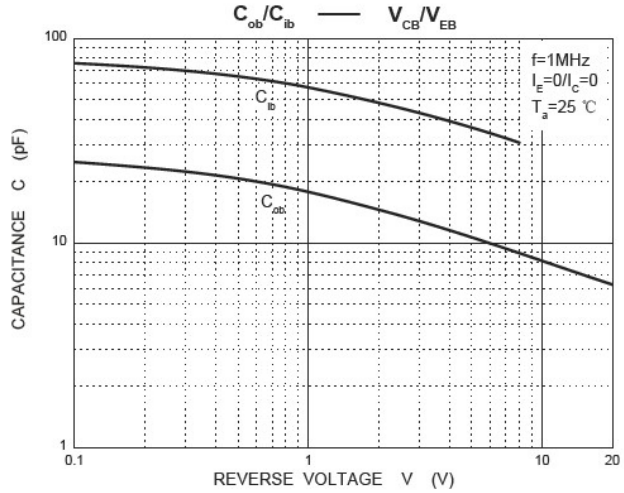


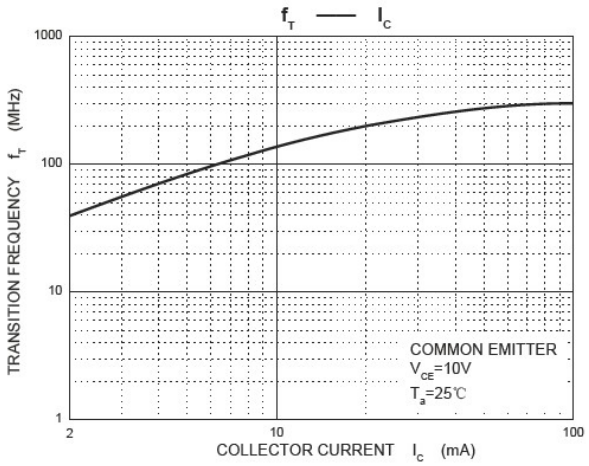


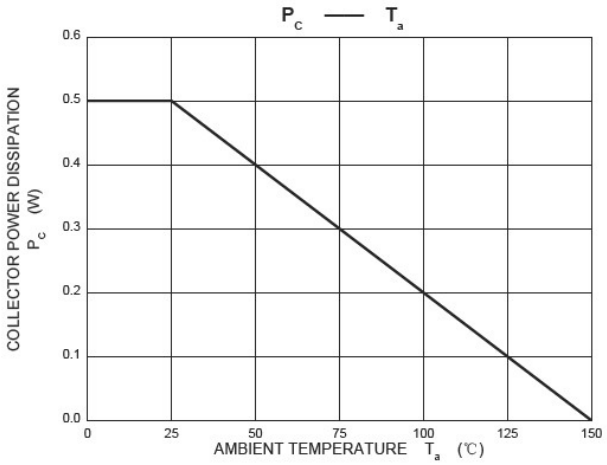






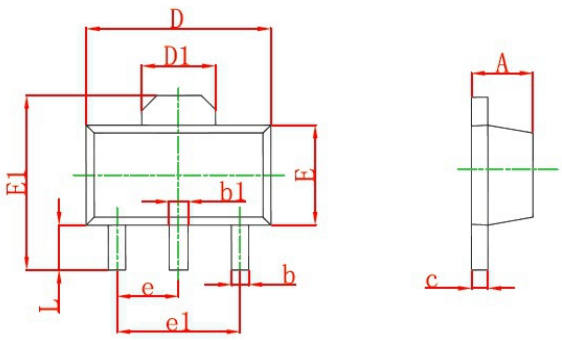






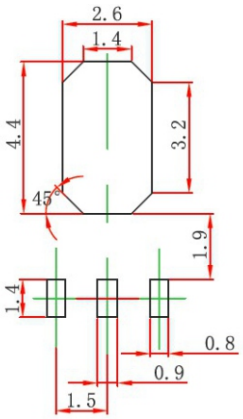
Outline Dimensions

SOT-89



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Suggested pad layout



Dimensions in millimetrers

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