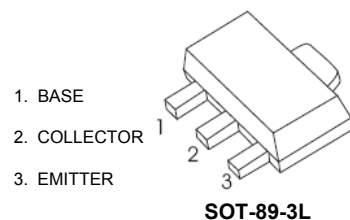


Features

- Epitaxial planar die construction
- Complementary PNP Type available (PXT2907A)



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Max.	Unit
Collector-Base Voltage	V_{CB0}	75	V
Collector-Emitter Voltage	V_{CE0}	40	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current-Continuous	I_C	600	mA
Collector Power Dissipation	P_C	0.5	W
Operating Junction Temperature Range	T_J	-55 To +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 To +150	$^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C/W}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$, $I_E=0$	75	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}$, $I_B=0$	40	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$, $I_C=0$	6	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB}=60\text{V}$, $I_E=0$	-	0.01	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$	-	0.01	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=10\text{V}$, $I_C=0.1\text{mA}$	35	-	-
	$h_{FE(2)}$	$V_{CE}=10\text{V}$, $I_C=1\text{mA}$	50	-	-
	$h_{FE(3)}$	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$	75	-	-
	$h_{FE(4)}$	$V_{CE}=10\text{V}$, $I_C=150\text{mA}$	100	300	-
	$h_{FE(5)}$	$V_{CE}=1\text{V}$, $I_C=150\text{mA}$	50	-	-
	$h_{FE(6)}$	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$	40	-	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$	-	1	V
		$I_C=150\text{mA}$, $I_B=15\text{mA}$	-	0.3	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$	-	2	V
		$I_C=150\text{mA}$, $I_B=15\text{mA}$	0.6	1.2	
Transition Frequency	f_T	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$, $F=100\text{MHz}$	300	-	MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $F=1\text{MHz}$	-	8	pF
Delay Time	t_d	$V_{CC}=30\text{V}$, $I_C=150\text{mA}$, $V_{BE(off)}=0.5\text{V}$, $I_{B1}=15\text{mA}$	-	10	ns
Rise Time	t_r		-	25	ns
Storage Time	t_s	$V_{CC}=30\text{V}$, $I_C=150\text{mA}$, $I_{B1}=-I_{B2}=15\text{mA}$	-	225	ns
Fall Time	t_f		-	60	ns

Typical Characteristic Curves

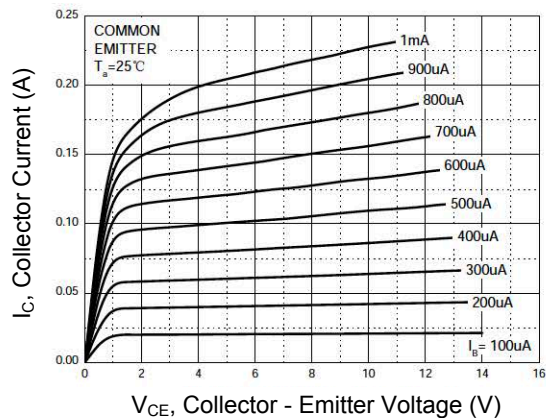


Figure 1. Static Characteristics

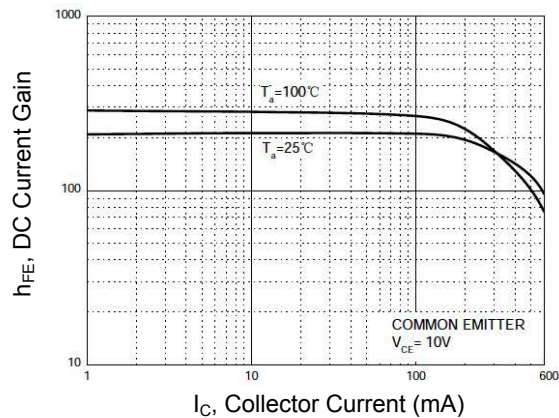


Figure 2. DC Current Gain vs. Collector Current

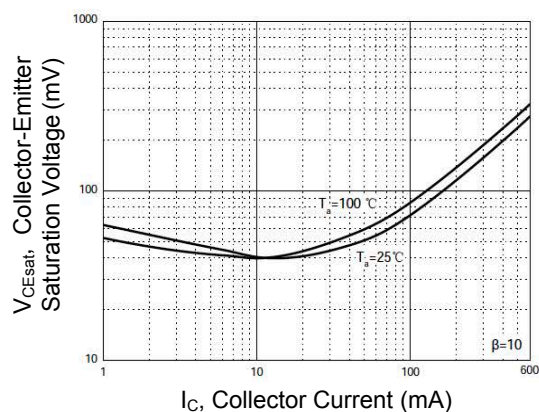


Figure 3. Collector - Emitter Saturation Voltage vs. Collector Current

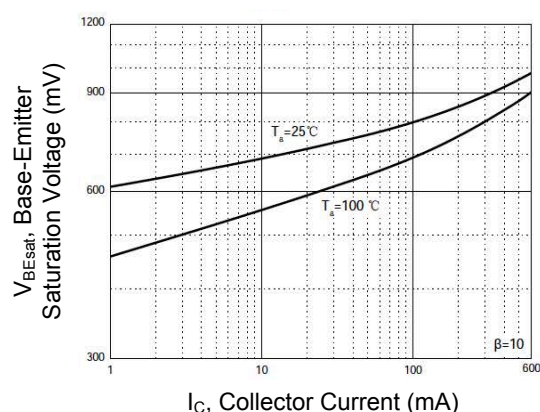


Figure 4. Base - Emitter Saturation Voltage vs. Collector Current

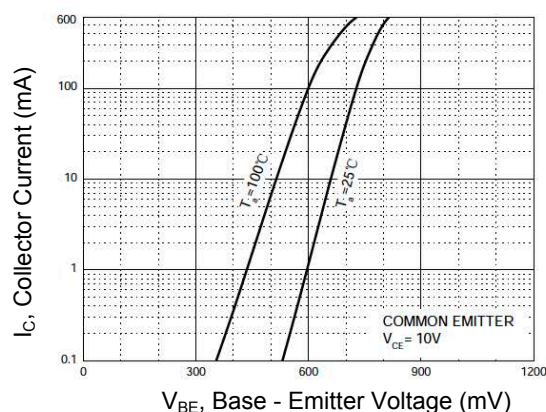


Figure 5. Collector Current vs. Base - Emitter Voltage

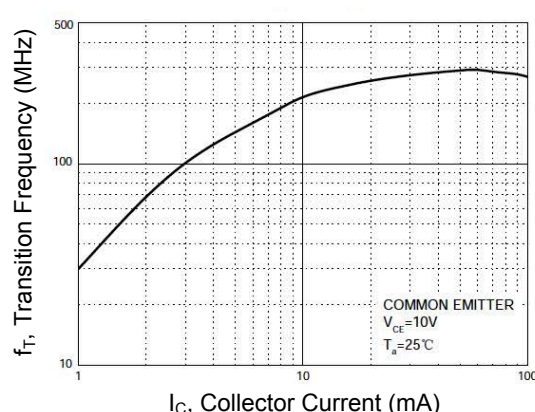


Figure 6. Transition Frequency vs. Collector Current

Typical Characteristic Curves

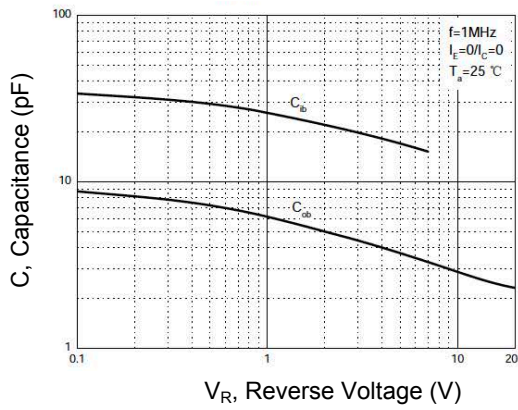


Figure 7. Capacitance Characteristics

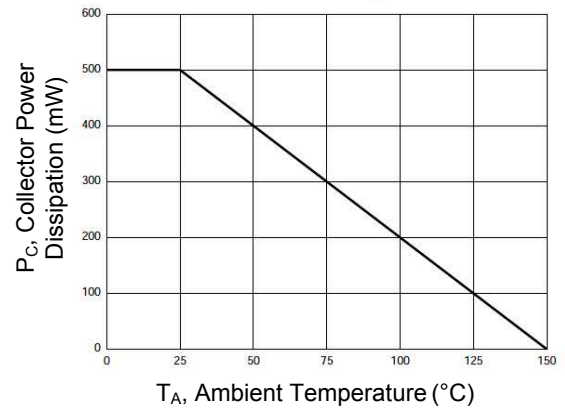


Figure 8. Power Dissipation vs. Ambient Temperature

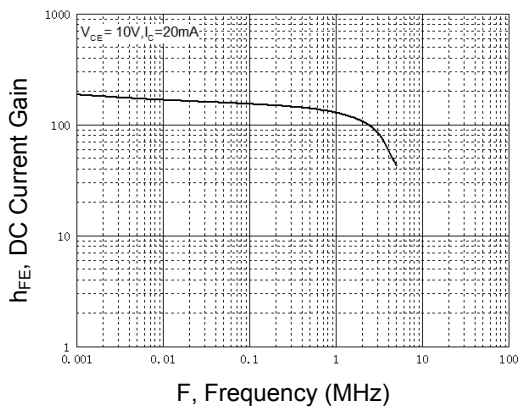
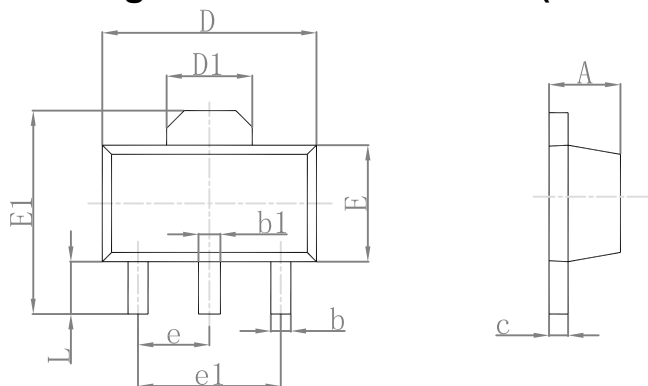


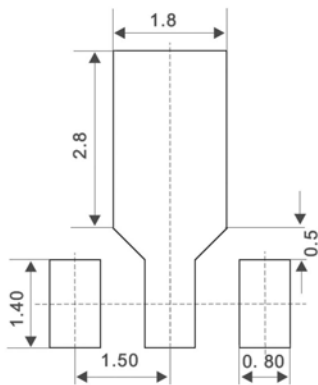
Figure 9. DC Current Gain vs. Frequency

Package Outline Dimensions (SOT-89-3L)



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.		0.059 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Recommended Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Order Information

Device	Package	Marking	Quantity	HSF Status
PXT2222A	SOT-89-3L	1P	1,000pcs / Reel	RoHS Compliant