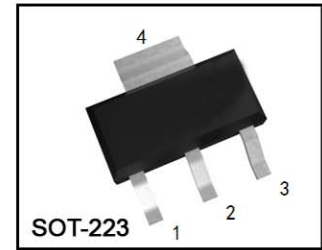
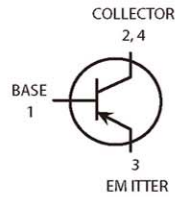


PNP Silicon Planar Epitaxial Transistor



● ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	- 60	Vdc
Collector-Base Voltage	V _{CBO}	- 60	Vdc
Emitter-Base Voltage	V _{EBO}	- 5.0	Vdc
Collector Current (DC)	I _{C(DC)}	-600	mAdc
Total Device Dissipation T _A =25°C	P _D	1.5	W
Junction Temperature	T _j	150	°C
Storage, Temperature	T _{stg}	-55 to +150	°C

● Device Marking

PZT2907A=2907A

● ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I _C =-10mAdc, I _B =0)	V _{(BR)CEO}	- 60		Vdc
Collector-Base Breakdown Voltage (I _C =-10μAdc, I _E =0)	V _{(BR)CBO}	- 60		Vdc
Emitter-Base Breakdown Voltage (I _E = -10 μAdc, I _C =0)	V _{(BR)EBO}	-5.0		Vdc
Base-Emitter Cutoff Current (V _{CE} = -60 Vdc, V _{BE} = -3.0Vdc)	I _{BEX}		-20	nAdc
Collector-Emitter Cutoff Current (V _{CE} = -30 Vdc, V _{BE} =-0.5 Vdc)	I _{CEX}		- 50	nAdc
Emitter-Base Cutoff Current (V _{EB} = -3.0Vdc, I _C =0)	I _{EBO}		-100	nAdc

NOTE: 1.Device mounted on an epoxy printed circuit board 1.575 inches x1.575 inches x0.059 inches; mounting pad for the collector lead min. 0.93 inches.²

● **ELECTRICAL CHARACTERISTICS** Continued ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	TYP	Max	Unit
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● **ON CHARACTERISTICS**

DC Current Gain ($I_C = -100\text{ mAdc}$ $V_{CE} = -10\text{V}$) ($I_C = -1.0\text{ mAdc}$ $V_{CE} = -10\text{V}$) ($I_C = -10\text{ mAdc}$ $V_{CE} = -10\text{V}$) ($I_C = -150\text{ mAdc}$ $V_{CE} = -10\text{V}$) ($I_C = -500\text{ mAdc}$ $V_{CE} = -10\text{V}$)	h_{FE1} h_{FE2} h_{FE3} h_{FE4} h_{FE5}	75 100 100 100 50	180	300	
Collector-Emitter Saturation Voltages ($I_C = -150\text{ mAdc}$ $I_B = -15\text{ mAdc}$) ($I_C = -500\text{ mAdc}$ $I_B = -50\text{ mAdc}$)	$V_{CE(sat)}$		-0.2 -0.5	-0.4 -1.6	Vdc
Base-Emitter Saturation Voltages ($I_C = -150\text{ mAdc}$ $I_B = -15\text{ mAdc}$) ($I_C = -500\text{ mAdc}$ $I_B = -50\text{ mAdc}$)	$V_{BE(sat)}$			-1.3 -2.6	Vdc

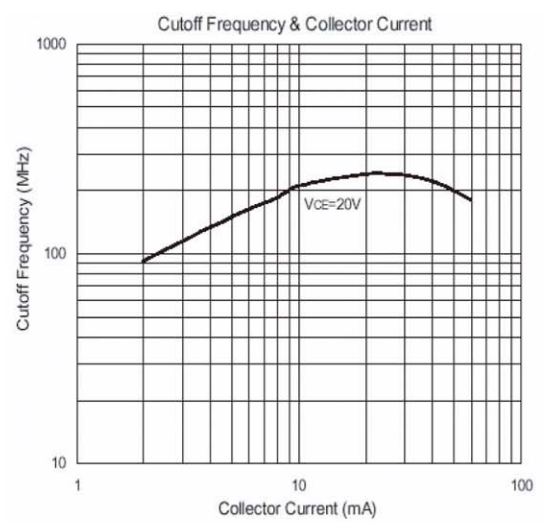
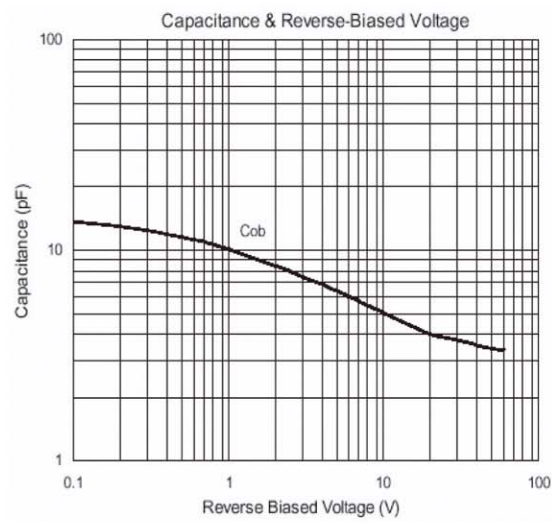
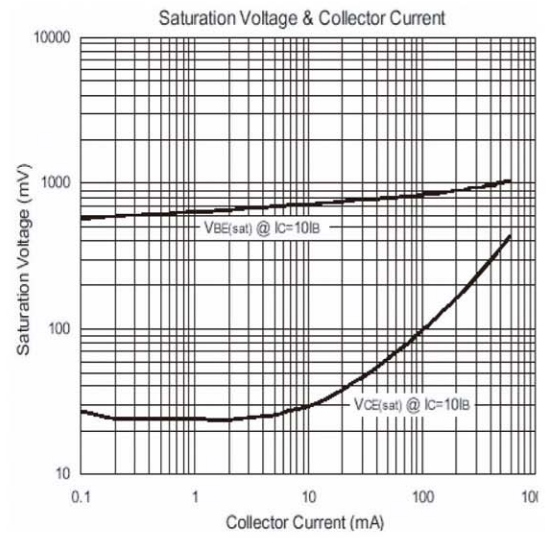
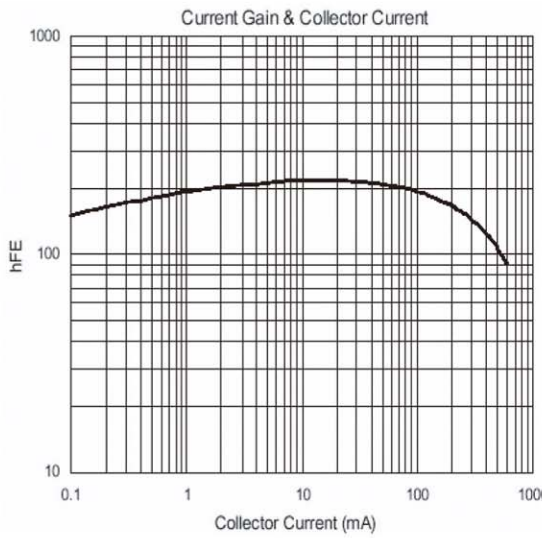
● **DYNAMIC CHARACTERISTICS**

Current Gain Bandwidth Product ($I_C = -50\text{ mAdc}$, $V_{CE} = -20\text{ Vdc}$, $f = 100\text{ MHz}$)	f_T	200			MHz
Output Capacitance ($V_{CB} = -10\text{ Vdc}$, $I_E = 0$, $f = 1.0\text{ MHz}$)	C_c			8.0	pF
Input Capacitance ($V_{EB} = -2.0\text{ Vdc}$, $I_C = 0$, $f = 1.0\text{ MHz}$)	C_e			30	pF

● **SWITCHING TIMES** ($T_A = 25^\circ\text{C}$)

Turn On Time	$(V_{CC} = -30\text{ Vdc}$, $I_C = -150\text{ mAdc}$, $I_{B1} = -15\text{ mAdc}$)	t_{on}		45	ns
Delay Time		t_d		10	
Rise Time		t_r		40	
Turn Off Time	$(V_{CC} = -6.0\text{ Vdc}$, $I_C = -150\text{ mAdc}$, $I_{B1} = I_{B2} = -15\text{ mAdc}$)	t_{off}		100	ns
Storage Time		t_s		80	
Fall Time		t_f		30	

2. Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$



SOT-223 Outline Dimensions

unit:mm

