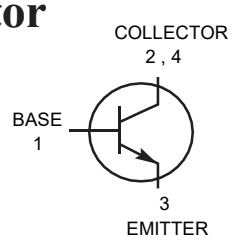
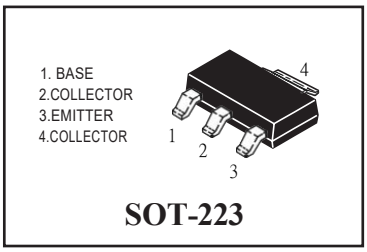
PZT5551

NPN Silicon Planar Epitaxial Transistor

Lead(Pb)-Free





SOT-223

ABSOLUTE MAXIMUM RATINGS (T_A=25˚C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	160	V
Collector-Base Voltage	V_{CBO}	180	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	600	mA
Total Device Disspation	P_D	1.5	W
Junction Temperature	Tj	150	˚C
Storage, Temperature	Tstg	-55 to +150	˚C

Device Marking

PZT5551=5551

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage (I_C=1mA,I_B=0)	$V_{(BR)CEO}$	160	-	-	V
Collector-Base Breakdown Voltage (I_C=100μA,I_E=0)	$V_{(BR)CBO}$	180	-	-	V
Emitter-Base Breakdown Voltage (I_E=10 μA,I_C=0)	$V_{(BR)EBO}$	6	-	-	V
Collector-Emitter Cutoff Current (V_{CB} =120V,I_E=0)	I_{CBO}	-	-	50	nA
Emitter-Base Cutoff Current (V_{EB}=4V,I_C=0)	I_{EBO}	-	-	50	nA

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ON CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
DC Current Gain (V_{CE} = 5V, I_C = 1mA) (V_{CE} = 5V, I_C = 10mA) (V_{CE} = 5V, I_C = 50mA)	 h_{FE1} h_{FE2} h_{FE3}	 80 80 50	 - 160 -	 - 400 -	-
Collector-Emitter Saturation Voltages (I_C = 10mA, I_B = 1mA) (I_C = 50mA, I_B = 5mA)	$V_{CE(sat)}$	 -	 -	 0.15 0.2	 V V
Base-Emitter Saturation Voltages (I_C = 10mA, I_B = 1mA) (I_C = 50mA, I_B = 5mA)	$V_{BE(sat)}$	-	-	1	V

DYNAMIC CHARACTERISTICS

Current-Gain (V_{CE} = 10V, I_C = 10mA, f = 100MHz)	fT	100	-	300	MHz
Output Capacitance (V_{CB} = 10V, I_E = 0, f = 1MHz)	C_{ob}	-	-	6	pF

CLASSIFICATION OF hFE2

Rank	A	N	C
Range	80 - 200	100 - 250	160 - 400

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Characteristics Curve

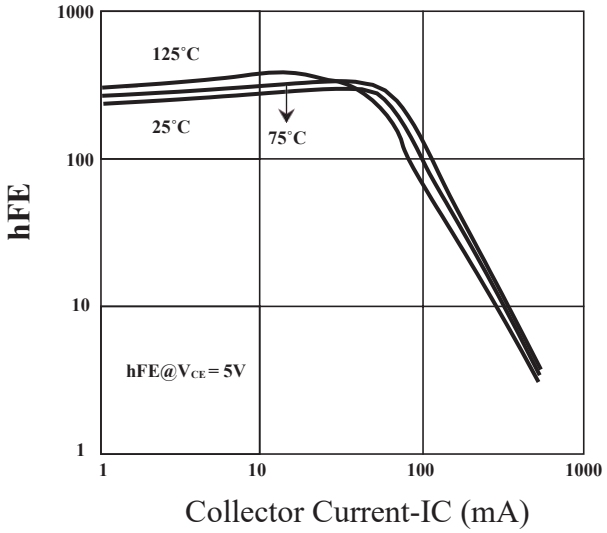


Fig.1 Current Gain & Collector Current

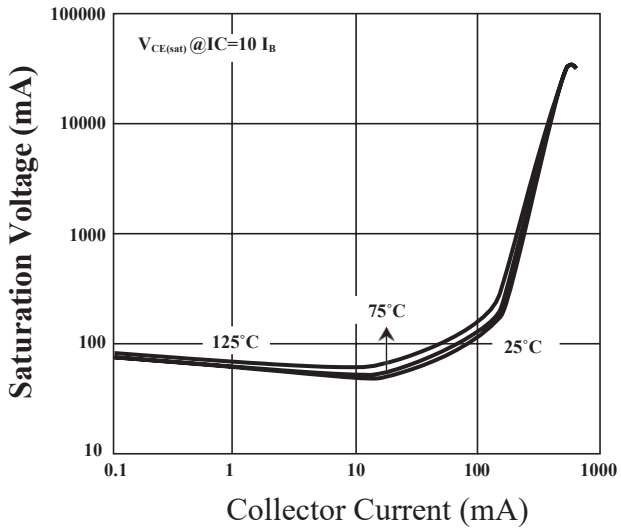


Fig.2 Saturation Voltage & Collector Current

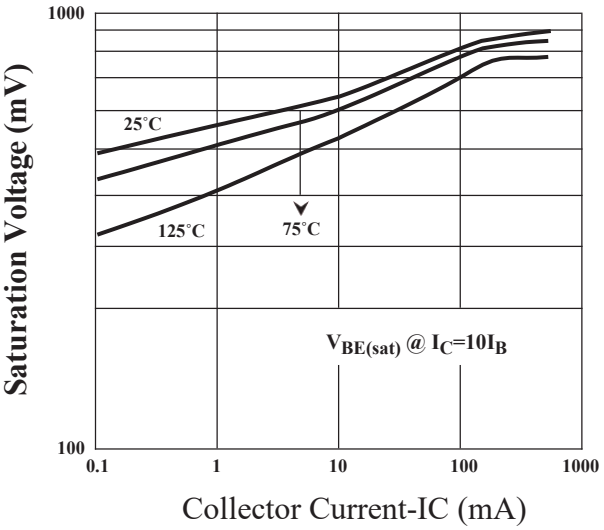


Fig.3 Saturation Voltage & Collector Current

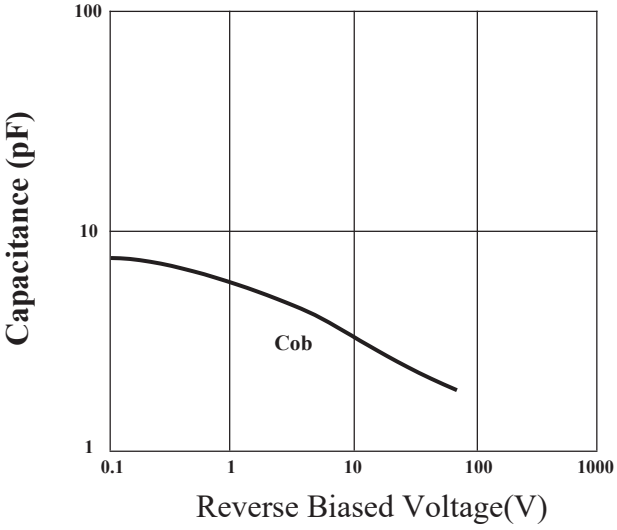


Fig.4 Capacitance & Reverse-Biased Voltage

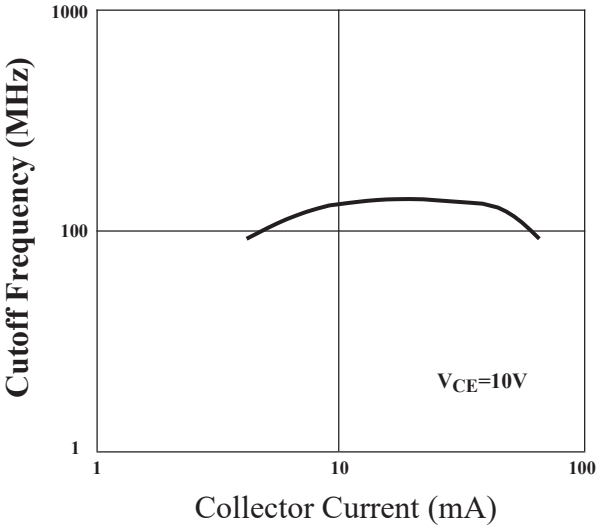


Fig.5 Cutoff Frequency & Collector Current

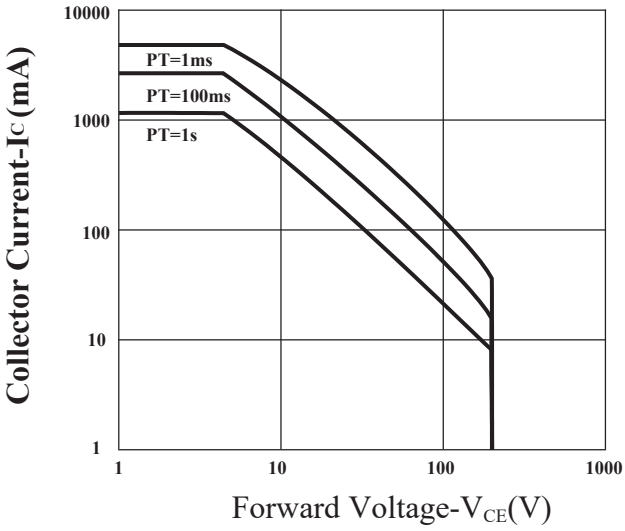
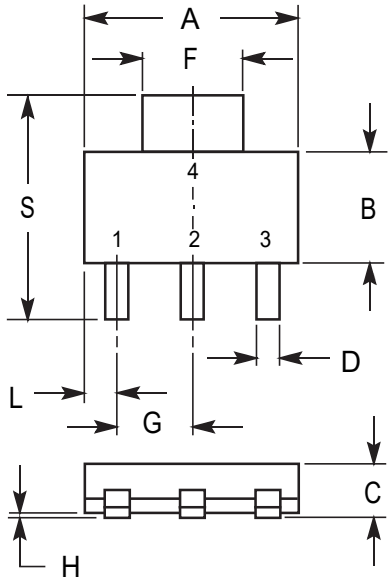


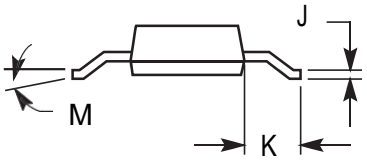
Fig.6 Safe Operation Area

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SOT-223 Outline Dimensions

unit:mm





	MILLIMETERS	
DIM	MIN	MAX
A	6.30	6.70
B	3.30	3.70
C	1.50	1.75
D	0.60	0.89
F	2.90	3.20
G	2.20	2.40
H	0.020	0.100
J	0.24	0.35
K	1.50	2.00
L	0.85	1.05
M	0°	10°
S	6.70	7.30

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