WANSEMI
万代半导体

WPZT5551

SOT223 TRANSISTOR(NPN)

SOT223/TRANS(NPN)/600mA/150-250

Rev1.0

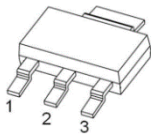
SOT23 TRANSISTOR(NPN)

1.Features

- High Voltage
- High Voltage Amplifier Application
- High Stability and High Reliability

2. Mechanical Data

- SOT-223 Small Outline Plastic Package



1. BASE
2. COLLECTOR
3. EMITTER

3.Package Marking and Ordering Information

Part no.	Marking	Package	PCS/Reel	PCS/CTN.
WPZT5551	ZT5551	SOT-223	1,000	28,000

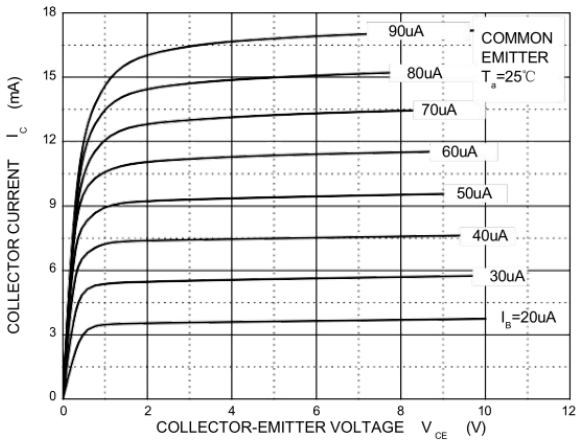
4. Maximum Ratings & Thermal Characteristics at Ta=25℃

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter -Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	600	mA
Collector Power Dissipation	P_C	1000	mW
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55 ~ +150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	125	℃/W

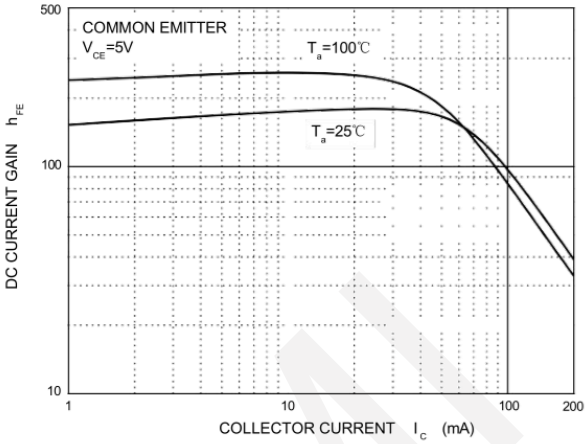
5.Electrical Characteristics at Ta=25℃

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100uA, I_E=0	180		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10uA, I_C=0	6		V
Collector cut-off current	I_{CEO}	V_{CE}=120V, I_B=0		50	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0		50	nA
DC current gain	$h_{FE(1)}$	V_{CE}=5V, I_C=1mA	80	300	
	$h_{FE(2)}$	V_{CE}=5V, I_C=10mA	100		
	$h_{FE(3)}$	V_{CE}=5V, I_C=50mA	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA		0.15	V
		I_C=50mA, I_B=5mA		0.2	V
Base -emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA, I_B=1mA		1	V
		I_C=50mA, I_B=5mA		1	V
Transition frequency	f_T	V_{CE}=10V, I_C=10mA, f=100MHz	100	300	MHz
Collector output capacitance	C_{ob}	V_{CB} =10V, I_E =0, f=1MHz		6	pF
Emitter input capacitance	C_{ib}	V_{BE} =0.5V, I_C =0, f=1MHz		20	pF

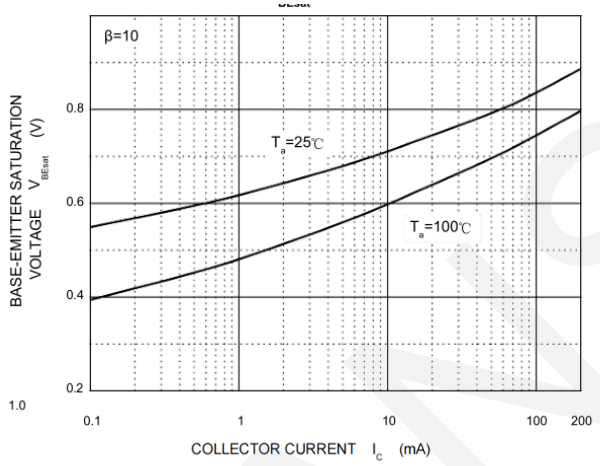
6.Typical Characteristics



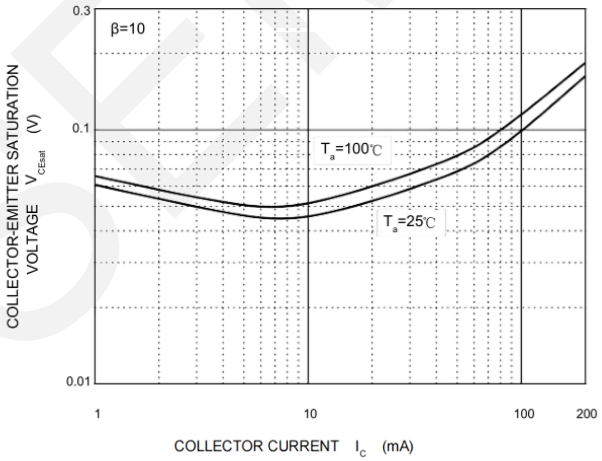
Static Characteristic



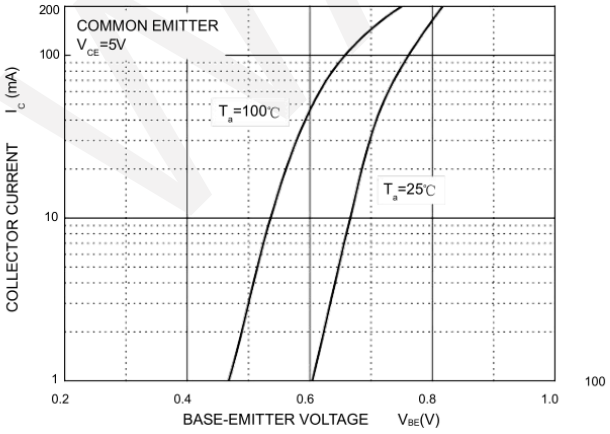
h_{FE} -- I_C



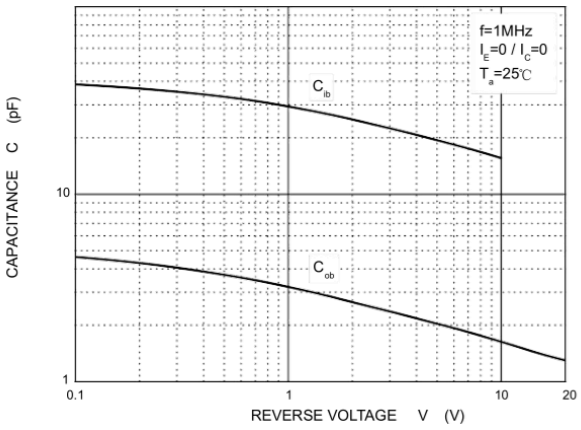
V_{BEsat} -- I_C



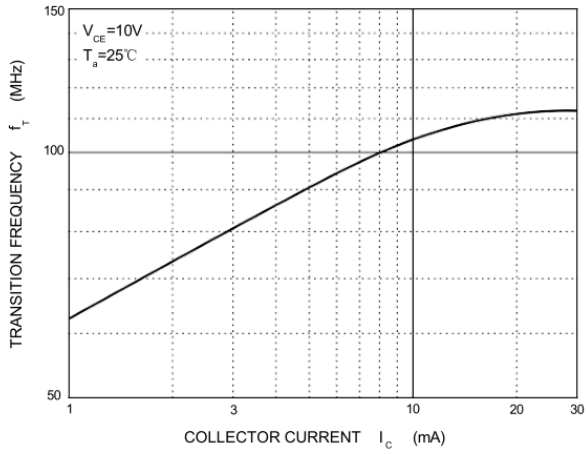
V_{CEsat} -- I_C



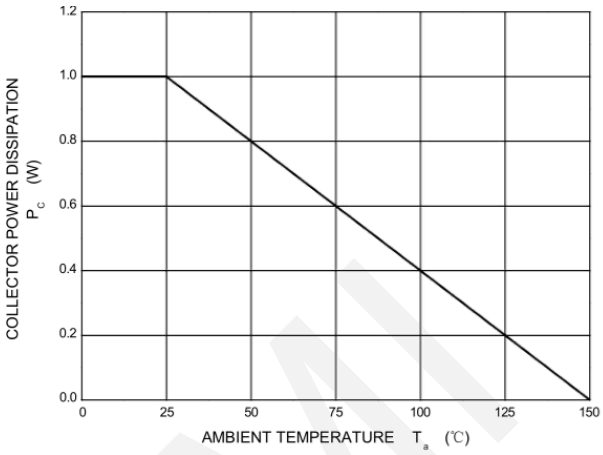
V_{BE} -- I_C



C_{ob}/C_{ib} – V_{CB}/V_{EB}

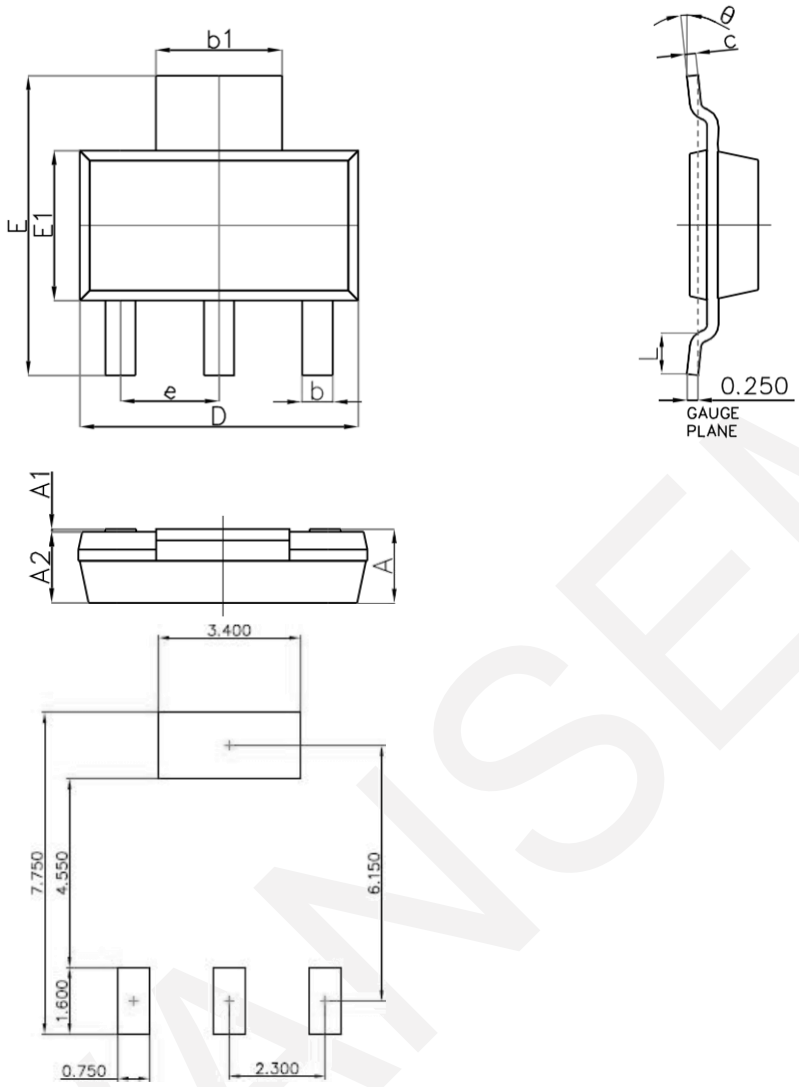


f_T -- I_C



P_C -- T_a

7.Package Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	——	1.800	——	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	——	0.030	——
θ	0°	10°	0°	10°

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