2SA1593 TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

TO-252

FEATURES

- Designed for General Purpose Amplifier and Low Speed Switching Applications.
- Lead Formed for Surface Mount Applications in Plastic Sleeves
- High breakdown voltage and large current capactity

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current -Continuous	I_C	-2	A
Collector Power Dissipation	P_C	1.0	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	125	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-65-150	℃

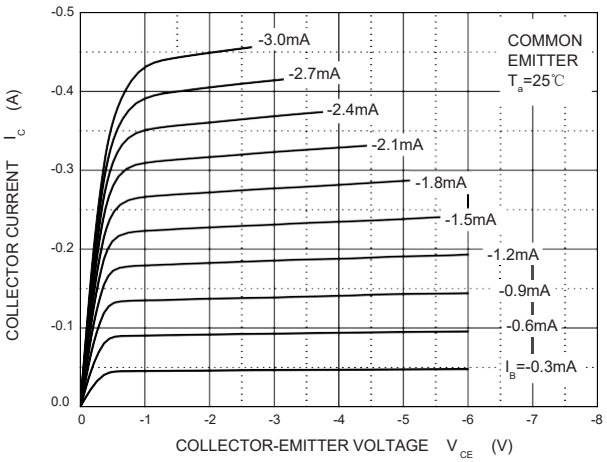
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA,I_E=0	-120			V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	I_C=-1mA,I_B=0	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA,I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-100V,I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V,I_C=0			-100	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-5V,I_C=-0.1A	100		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1A,I_B=-0.1A			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1A,I_B=-0.1A			-1.2	V
Collector output capacitance	C_{ob}	VCB=-10V,IE=0,f=1MHz		26		pF
Transition frequency	f_T	V_{CE}=-10V,I_C=-250mA,f=10MHz	3			MHz

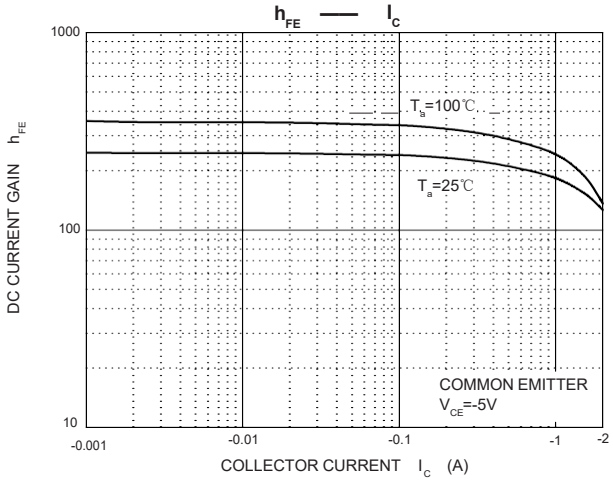
CLASSIFICATION OF $h_{FE(1)}$

RANK	S	T
Range	100-240	200-400

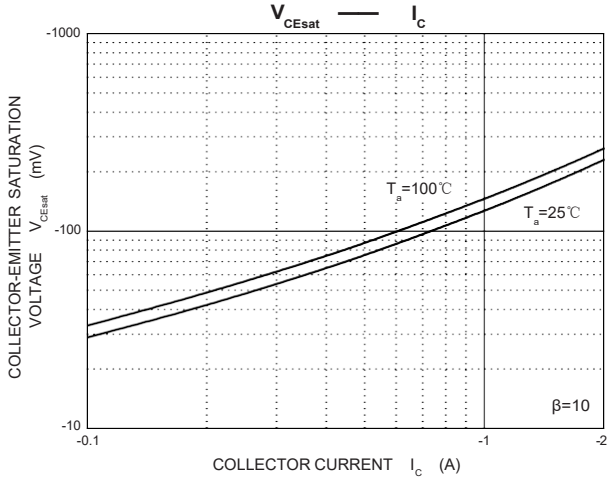
Static Characteristic



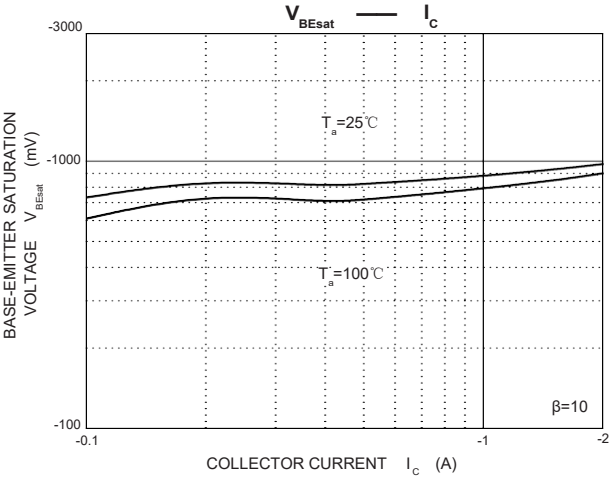
h_{FE} —— I_C



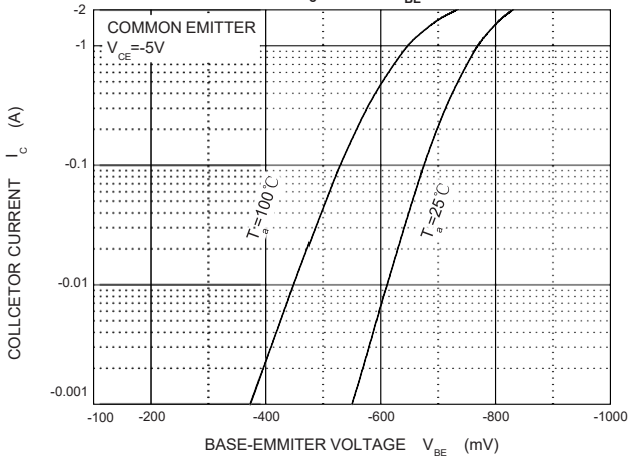
V_{CEsat} —— I_C



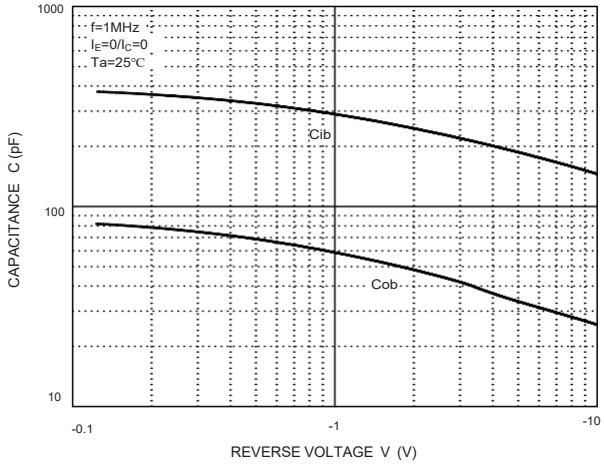
V_{BEsat} —— I_C



I_C —— V_{BE}



C_{ob} / C_{ib} —— V_{CB} / V_{EB}



P_c —— T_a