2SA1313 TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-23-3

FEATURES

- **Excellent h_{FE} Linearity**
  : $h_{FE(2)}$ =25(Min)at V_{CE} =-6V,I_C=- 400mA.
- **High Voltage :V_{CEO}=-50V(Min)**
- **Complements to the 2SC3325.**

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-500	mA
P_C	Collector Power Dissipation	200	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

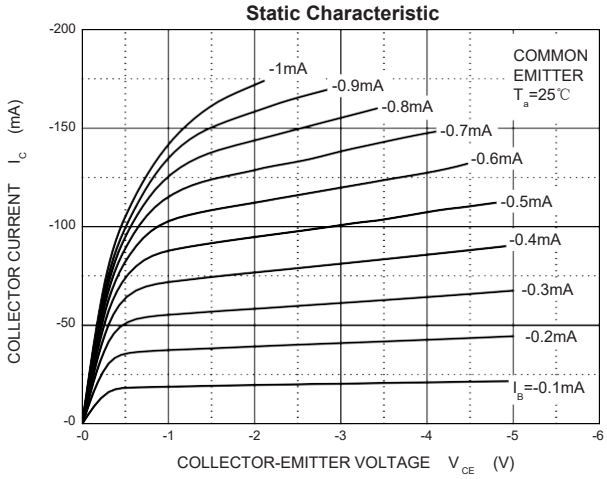
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0		-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0		-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0		-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,I_E=0				-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0				-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V,I_C=-100mA		70		240	
	$h_{FE(2)}$	V_{CE}=-6V,I_C=-400mA	O	25			
			Y	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA,I_B=-10mA				-0.25	V
Base-emitter voltage	V_{BE}	V_{CE}=-1V,I_C=-100mA				-1	V
Transition frequency	f_T	V_{CE}=-6V,I_C=-20mA			200		MHz
Collector output capacitance	C_{ob}	V_{CB}=-6V,I_E=0,f=1MHz			13		pF

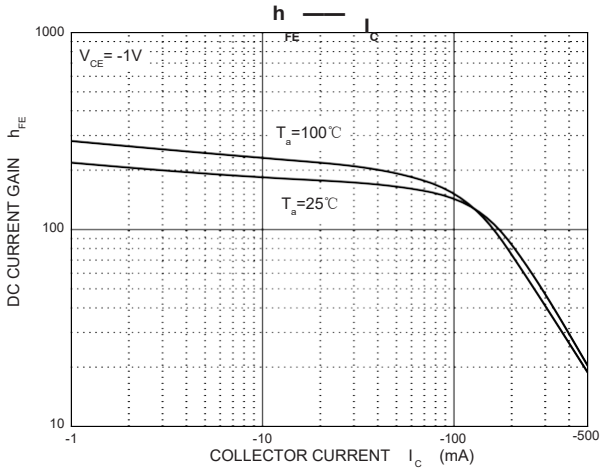
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120-240

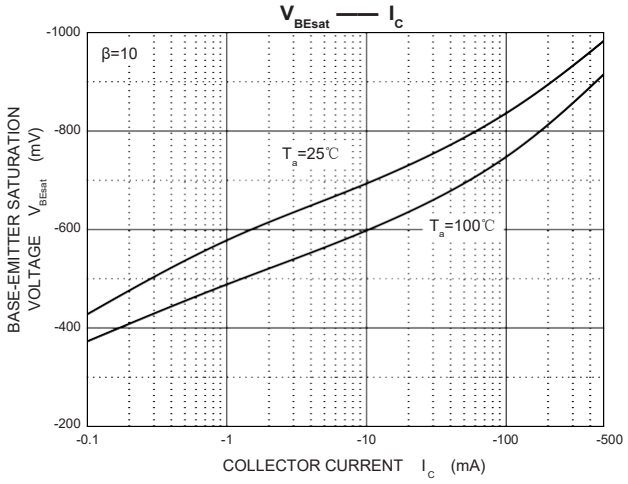
Static Characteristic



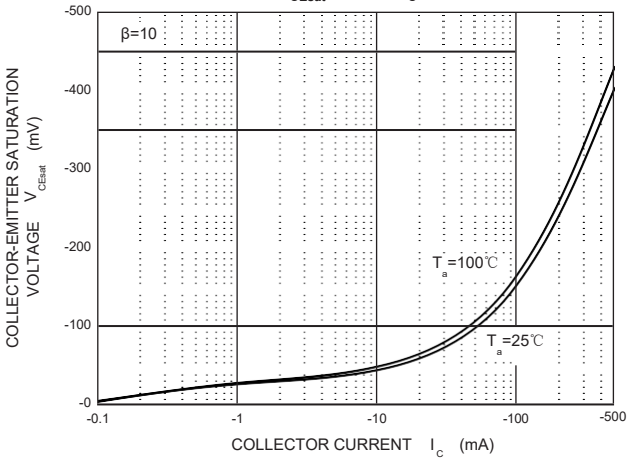
h_{FE} — I_C



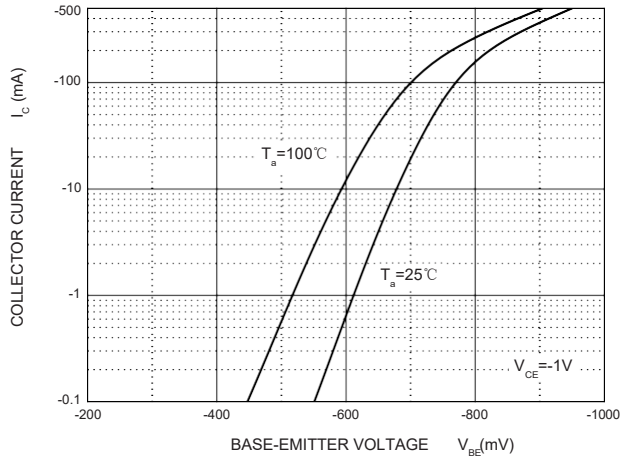
V_{BEsat} — I_C



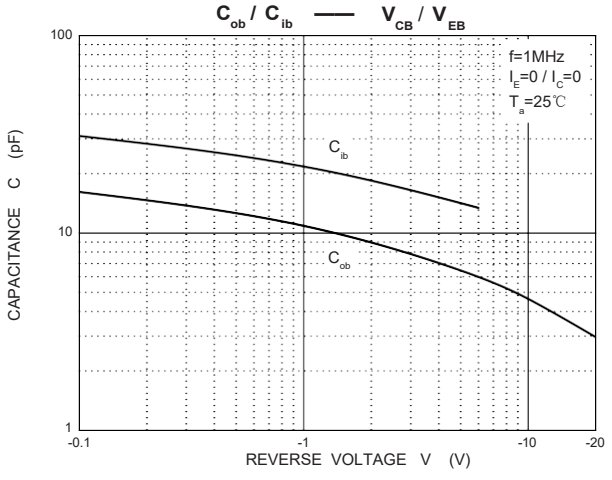
V_{CEsat} — I_C



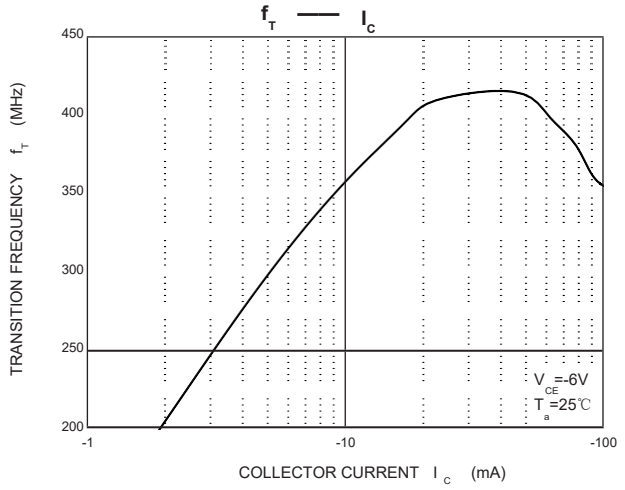
V_{BE} — I_C



C_{ob} / C_{ib} — V_{CB} / V_{EB}



f_T — I_C



P_c — T_a