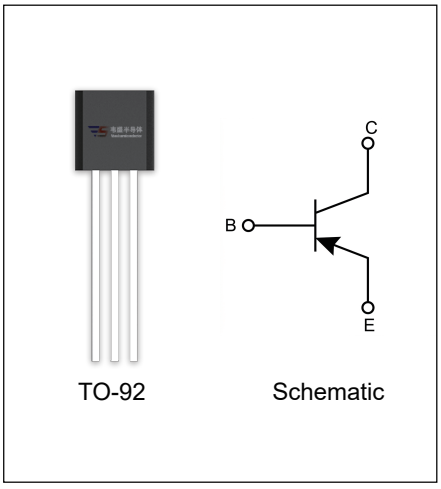
2SB985 TRANSISTOR (PNP)



FEATURES

- Power Supplies, Relay Drivers, Lamp Drivers
- Adoption of FBET,MBIT Processes
- Low Saturation Voltage
- Large Current Capacity and Wide ASO

MAXIMUM RATINGS (T_a=25 ℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -Continuous	-3	A
P_C	Collector Power Dissipation	0.9	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	139	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55 to +150	℃

ELECTRICAL CHARACTERISTICS

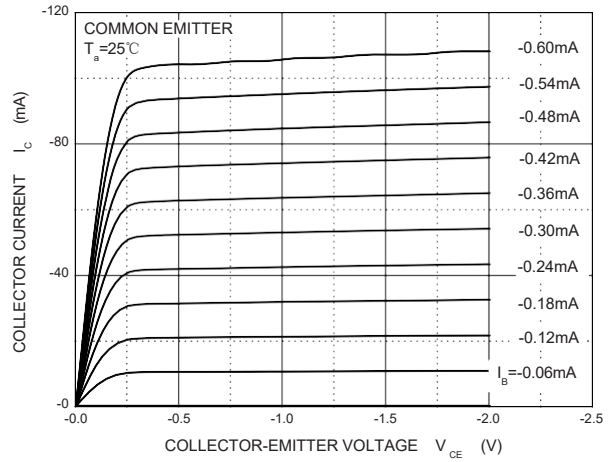
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10 μA, I_E=0	-60			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=-10 μA, I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V, I_E=0			-1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-2V, I_C=-100mA	100		560	
	$h_{FE(2)}$	V_{CE}=-2V, I_C=-3A	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-2A, I_B=-100mA			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-2A, I_B=-100mA			-1.2	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-50mA		150		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		39		pF

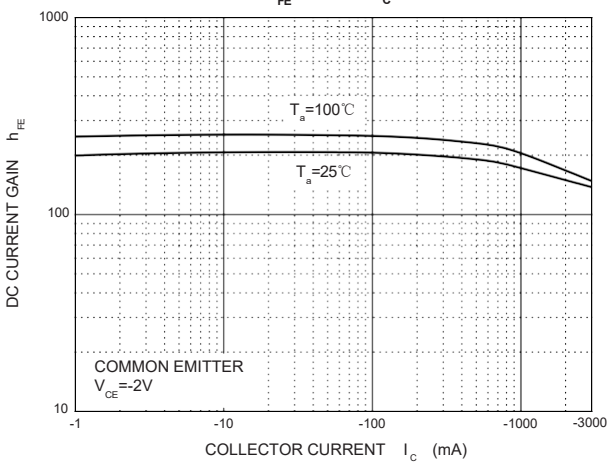
CLASSIFICATION OF $h_{FE(1)}$

Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560

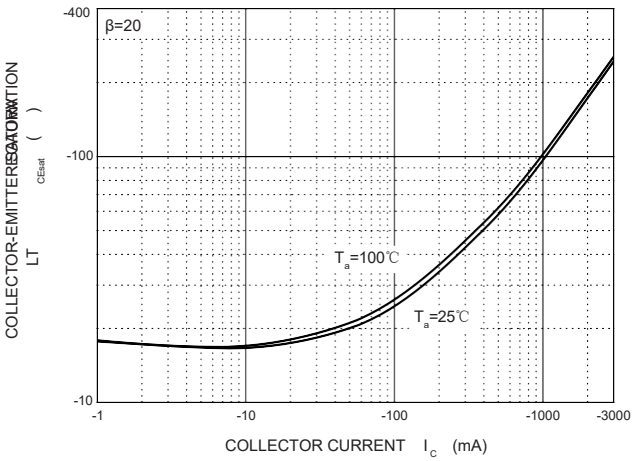
Static Characteristic



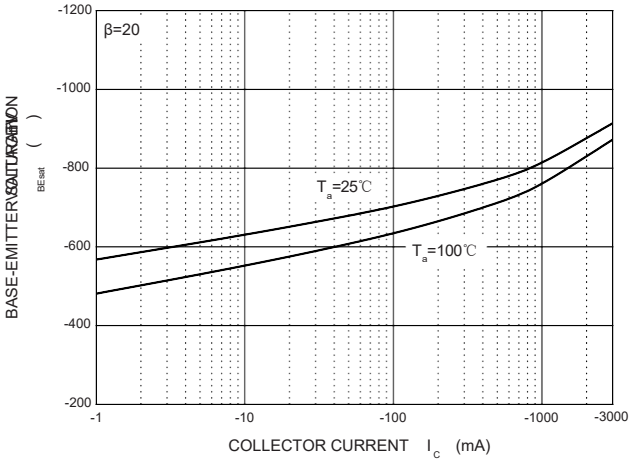
h_{FE} — I_C



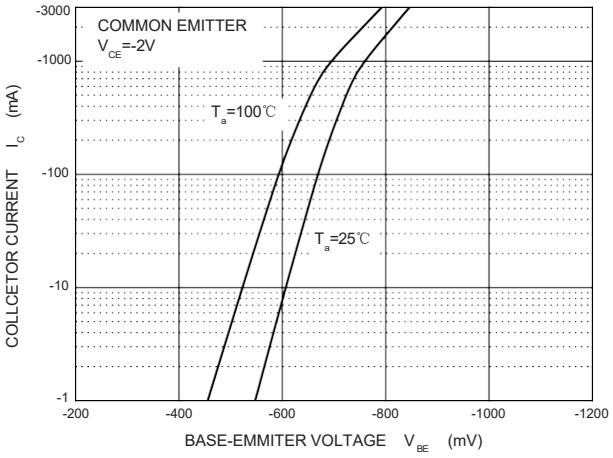
V_{CEsat} — I_C



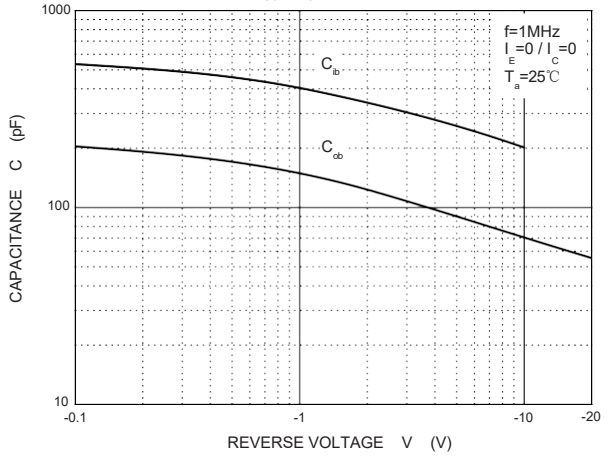
V_{BEsat} — I_C



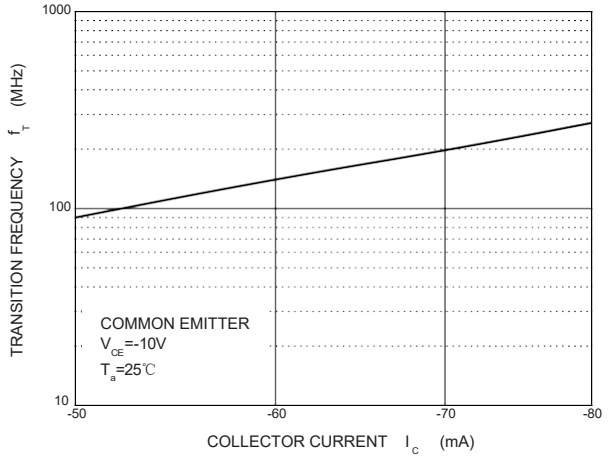
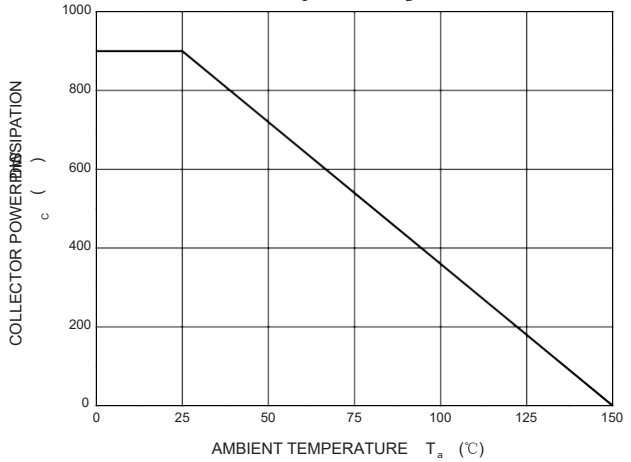
I_C — V_{BE}



C_{ob} / C_{ib} — V_{CB} / V_{EB}



f_T — I_C



P_C — T_a