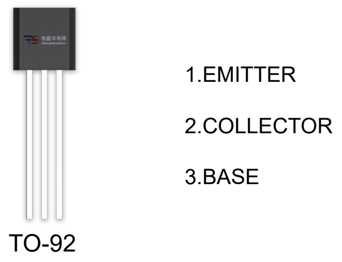
A44 TRANSISTOR (NPN)



FEATURES

- High Breakdown Voltage

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
A44	TO-92	Bulk	1000pcs/Bag
A44-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0. 2	A
I_{CM}	Collector Current -Pulsed	0. 3	A
P_C	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

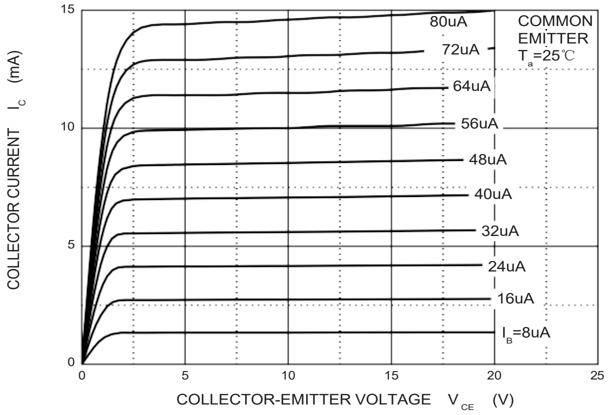
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=400V,I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=400V,I_B=0			5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=10V, I_C=10mA	80		300	
	$h_{FE(2)}$	V_{CE}=10V, I_C=1mA	70			
	$h_{FE(3)}$	V_{CE}=10V, I_C=100mA	40			
	$h_{FE(4)}$	V_{CE}=10V, I_C=50mA	80			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	I_C=10mA,I_B=1mA			0.2	V
	$V_{CE(sat)(2)}$	I_C=50mA,I_B=5mA			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA,I_B=1mA			0.75	V
Transition frequency	f_T	V_{CE}=20V, I_C=10mA,f=30MHz	50			MHz

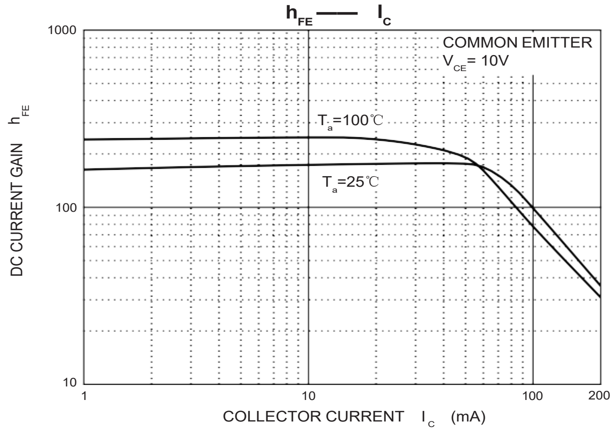
CLASSIFICATION OF $h_{FE(1)}$

RANK	A	B	C
RANGE	80-100	100-200	200-300

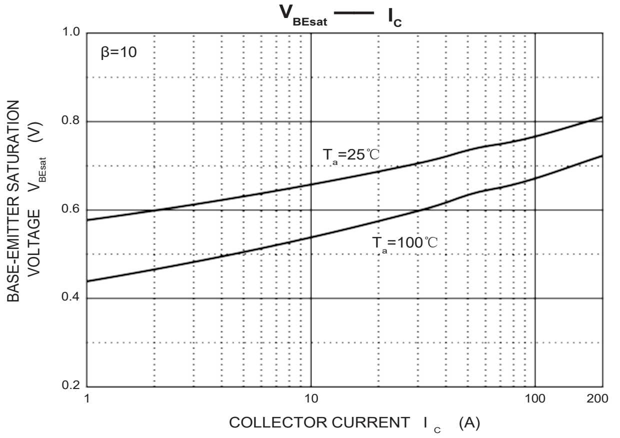
Static Characteristic



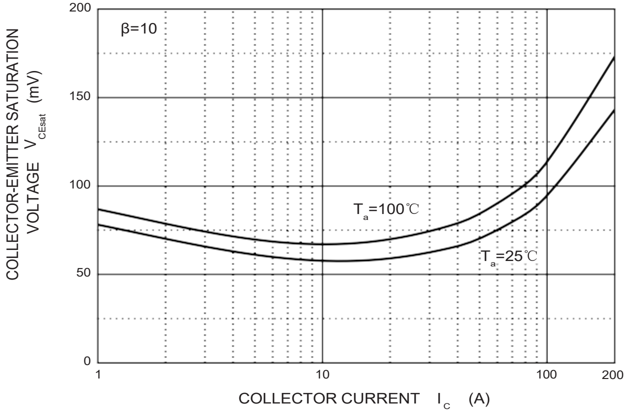
h_{FE} — I_C



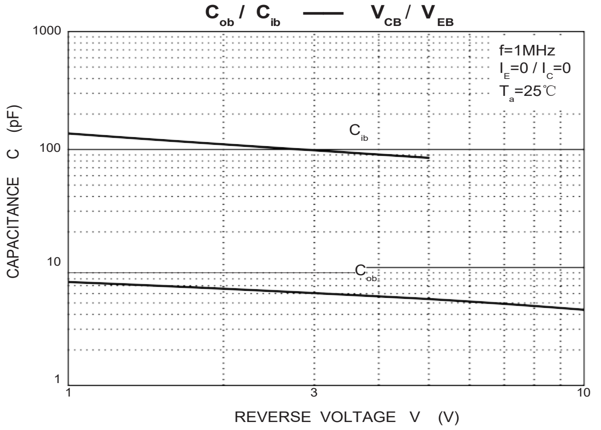
V_{BEsat} — I_C



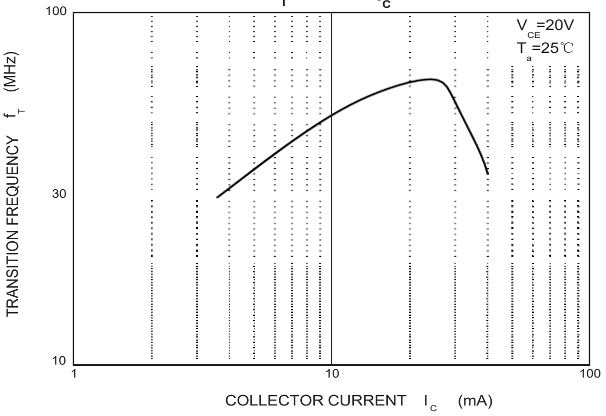
V_{CEsat} — I_C



C_{ob} / C_{ib} — V_{CB} / V_{EB}



f_T — I_C



P_C — T_a