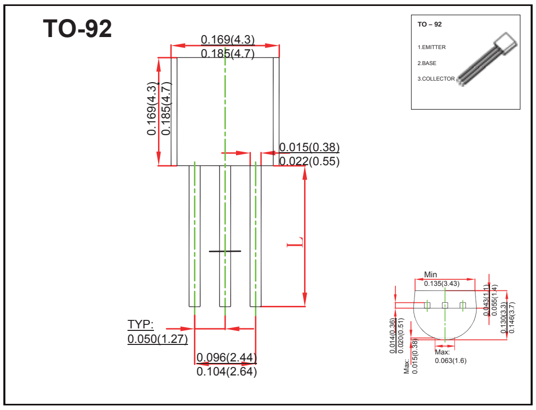
TO-92 Plastic-Encapsulate Transistors

Features

- ●NPN Transistors
- ●High Voltage

MECHANICAL DATA

- ●Case style:TO-92 molded plastic
- ●Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (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	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

PACKAGE INFORMATION

Device	Package	Shipping
A44	TO-92	2000/Tape&Reel

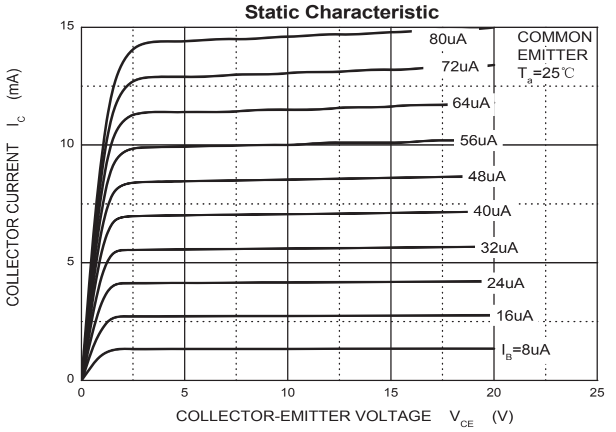
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=400V,I_E=0			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

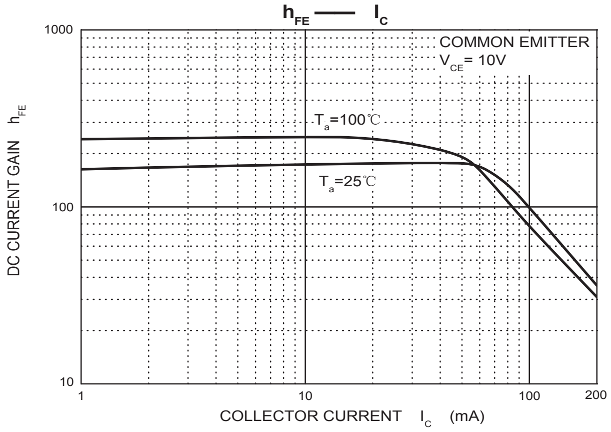
CLASSIFICATION OF $h_{FE(1)}$

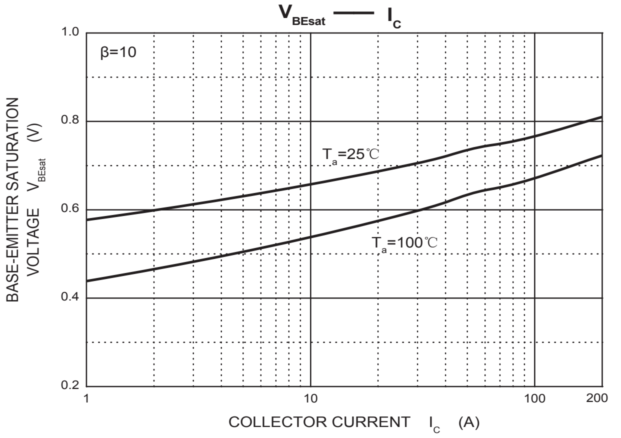
RANK	A	B	C
RANGE	80-100	100-200	200-300

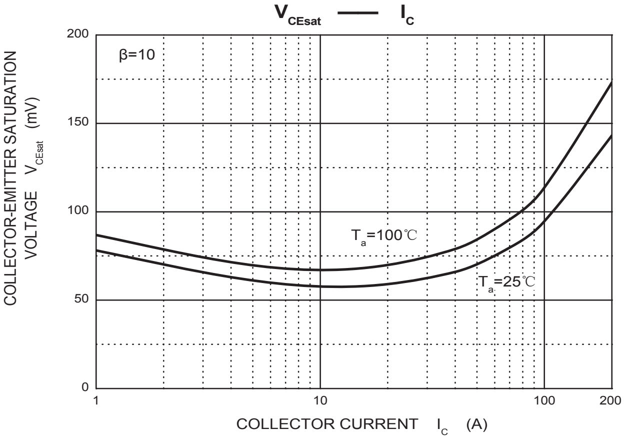
RATINGS AND CHARACTERISTIC CURVES

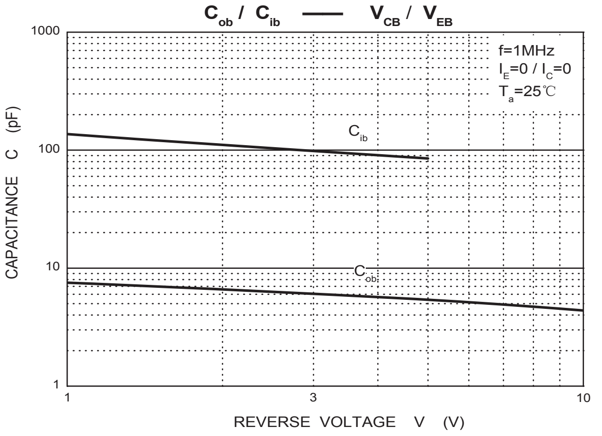
Typical Characterisitics

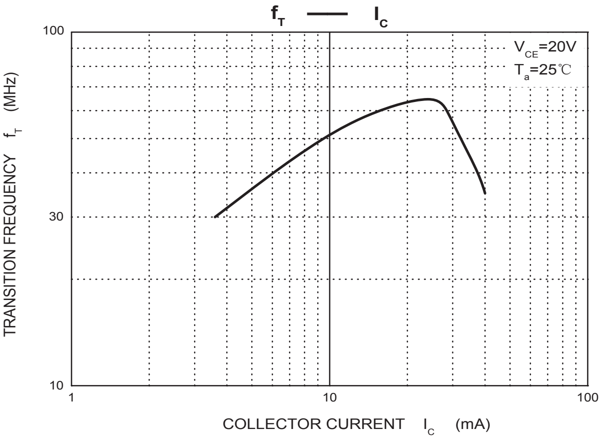

Static Characteristic

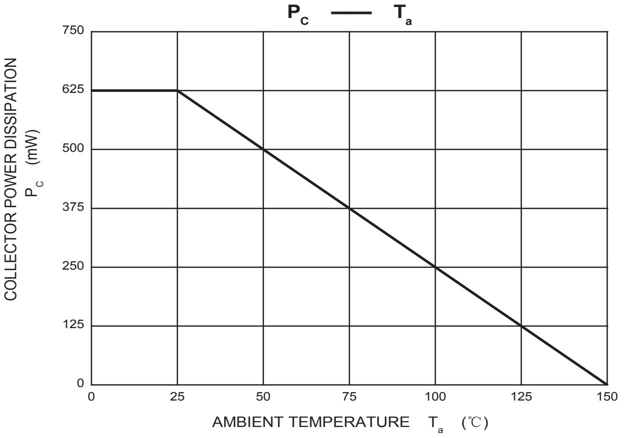

h_{FE} — I_C


V_{BEsat} — I_C


V_{CEsat} — I_C


C_{ob} / C_{ib} — V_{CB} / V_{EB}


f_T — I_C


P_C — T_a