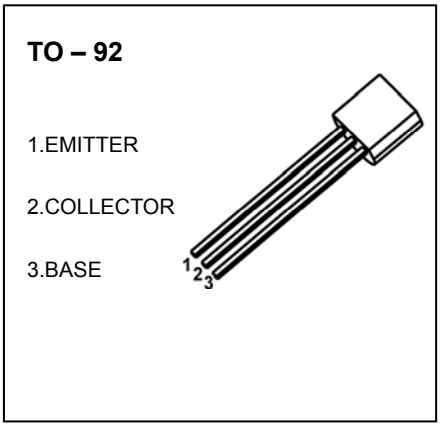
TO-92 Plastic-Encapsulate Transistors

STBV32/B TRANSISTER (NPN)



FEATURES

- Medium Voltage Capability
- Low Spread of Dynamic Parameters
- Minimum Lot-to-lot Spread for Reliable Operation
- Very High Switching Speed

APPLICATIONS

- Electronic Ballasts for Fluorescent Lighting

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

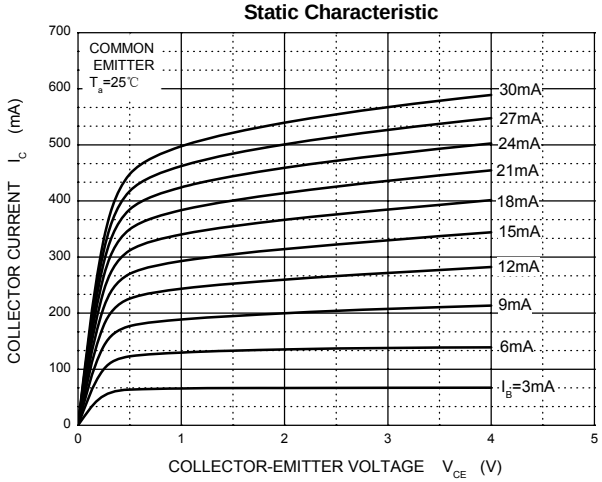
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	700	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	9	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	1.1	W
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	114	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

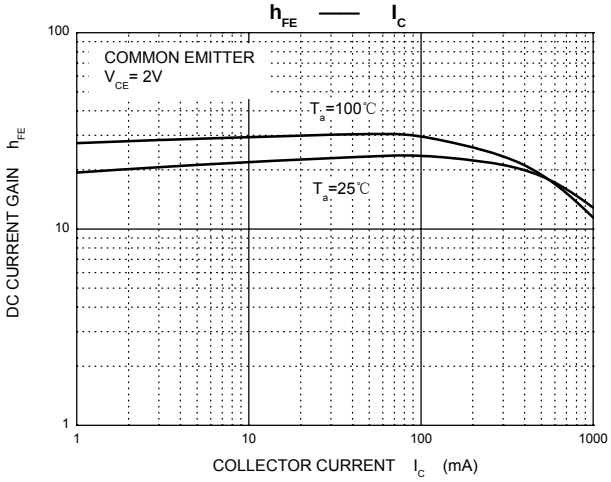
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$*	I_C=1mA, I_E=0	700			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=10mA, I_B=0	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10mA, I_C=0	9			V
Collector cut-off current	I_{CEO}	V_{BE}=-1.5V, V_{CE}=700V			1	mA
Emitter cut-off current	I_{EBO}	V_{EB}=7V, I_C=0			100	μA
DC current gain	$h_{FE(1)}$*	V_{CE}=2V, I_C=0.5A	8		35	
	$h_{FE(2)}$*	V_{CE}=2V, I_C=1A	5		25	
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$*	I_C=0.5A, I_B=0.1A			0.5	V
	$V_{CE(sat)(2)}$*	I_C=1 A, I_B=0.25A			1	V
	$V_{CE(sat)(3)}$*	I_C=1.5A, I_B=0.5A			1.5	V
Base-emitter saturation voltage	$V_{BE\ (sat)(1)}$*	I_C=0.5A, I_B=0.1A			1	V
	$V_{BE\ (sat)(2)}$*	I_C=1A, I_B=0.25A			1.2	V

*Pulse test: pulse width ≤300μs, duty cycle≤ 1.5%.

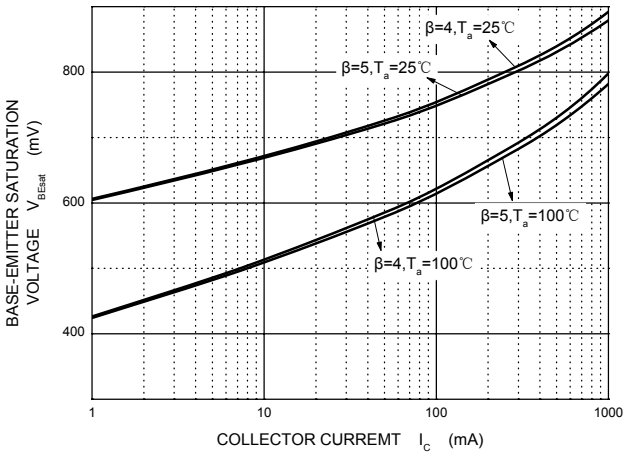
Static Characteristic



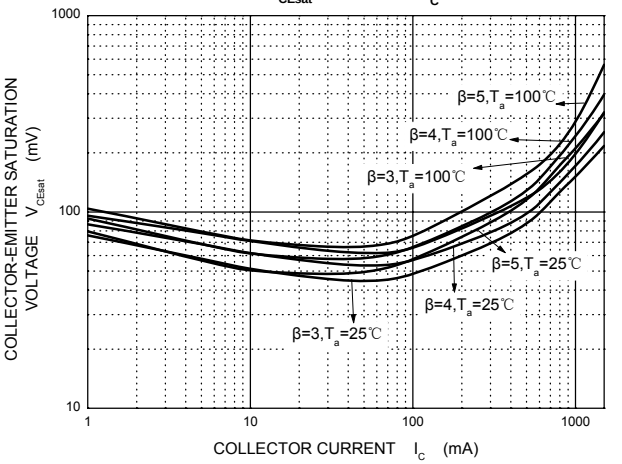
h_{FE} —— I_C



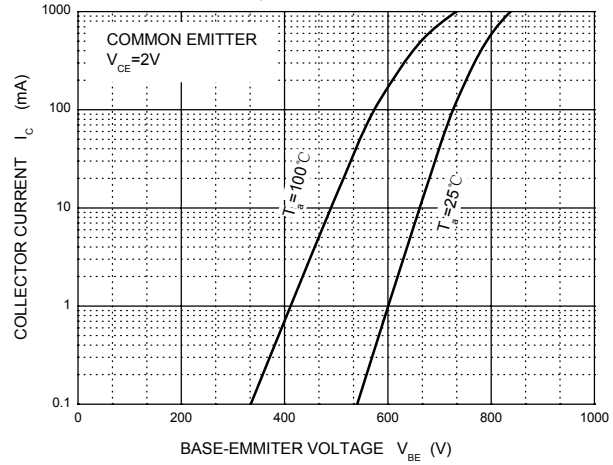
V_{BEsat} —— I_c



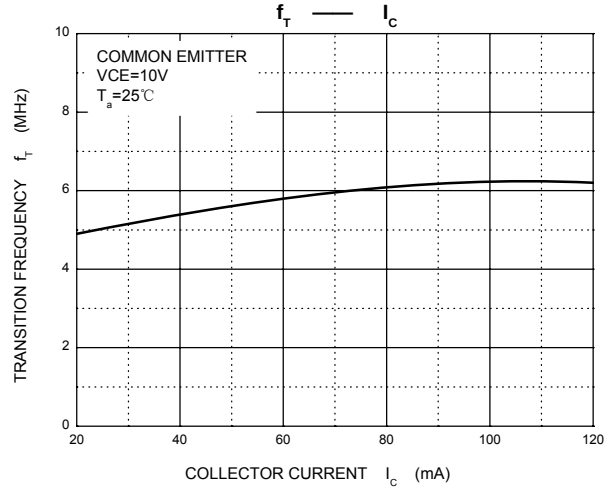
V_{CEsat} —— I_C



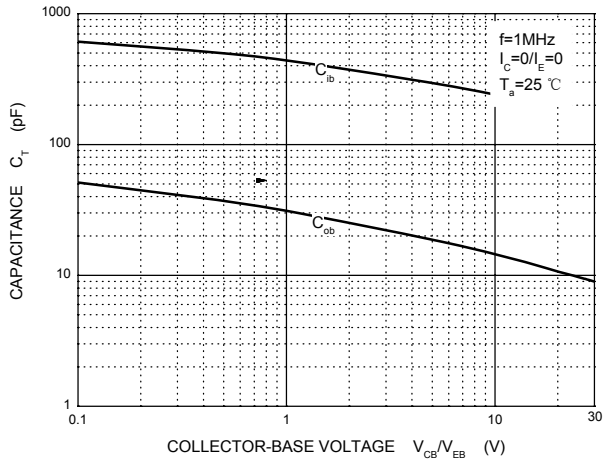
I_C —— V_{BE}



f_T —— I_C



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a