

## TRANSISTOR (PNP)

### FEATURES

- Suitable for AF-Driver stages and low power output stages
- Complement to BC818

### SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-30	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current –Continuous	-0.8	A
$P_C$	Collector Power Dissipation	300	mW
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-65-150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$ , $I_E=0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}$ , $I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$ , $I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-25\text{V}$ , $I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-4\text{V}$ , $I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}$ , $I_C=-100\text{mA}$	100		630	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}$ , $I_C=-300\text{mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}$ , $I_B=-50\text{mA}$			-0.7	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=-1\text{V}$ , $I_C=-300\text{mA}$			-1.2	V
Transition frequency	$f_T$	$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$ , $f=50\text{MHz}$		100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$		12		pF

### CLASSIFICATION OF $h_{FE}$

Rank	16	25	40
Range $h_{FE(1)}$	100-250	160-400	250-630
Marking	5E	5F	5G

## Typical Characteristics

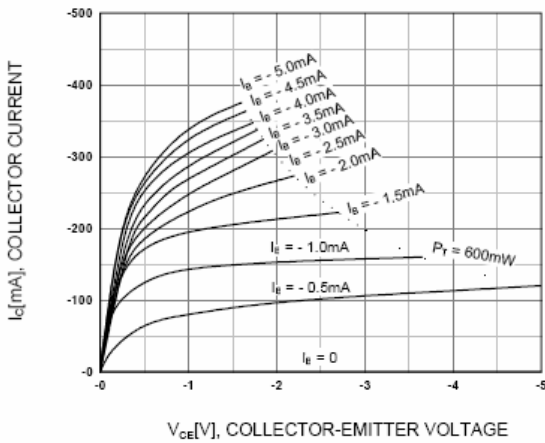


Figure 1. Static Characteristic

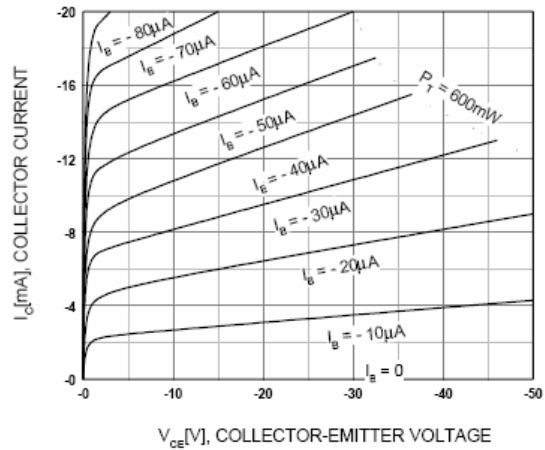


Figure 2. Static Characteristic

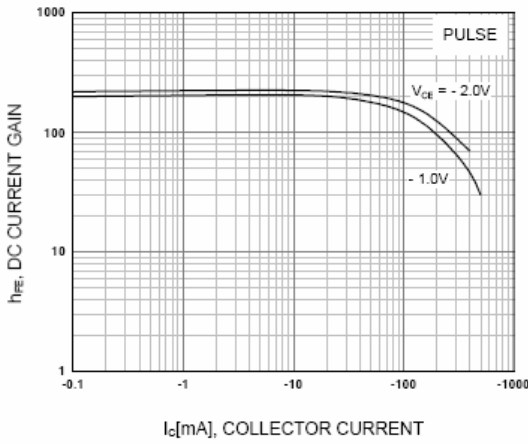


Figure 3. DC current Gain

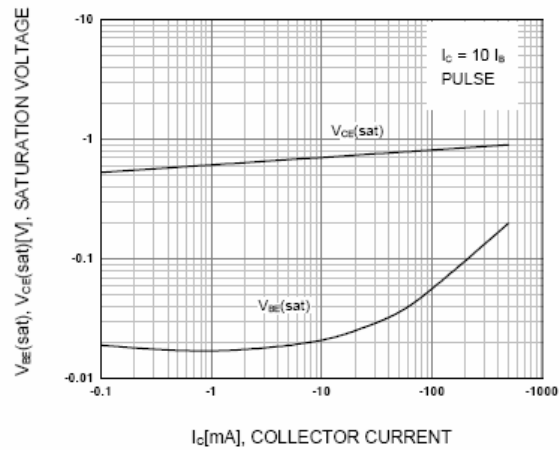


Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

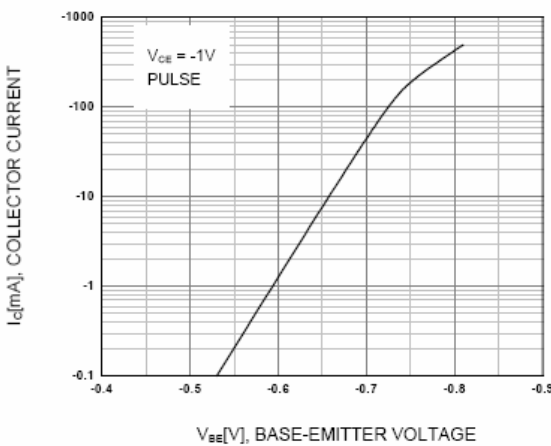


Figure 5. Base-Emitter On Voltage

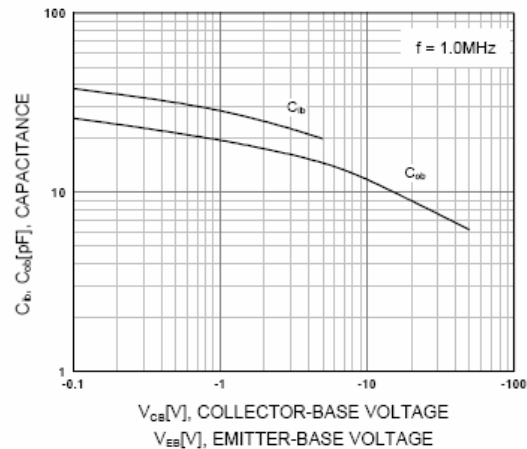


Figure 6. Input Output Capacitance

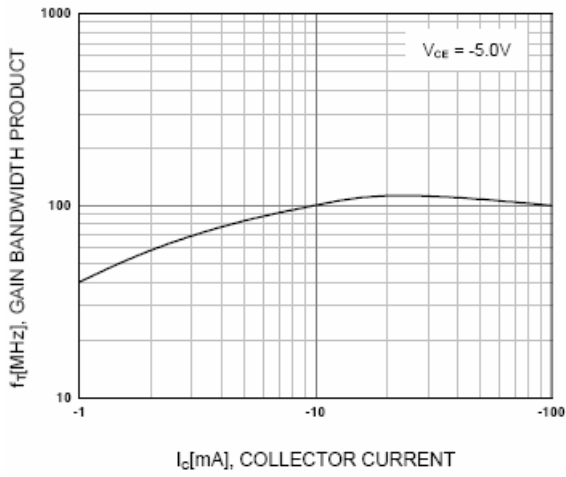


Figure 7. Current Gain Bandwidth Product