

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_{CB0}	Collector-Base Voltage	-30	V
V_{CE0}	Collector-Emitter Voltage	-25	V
V_{EB0}	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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-0.1	μA
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

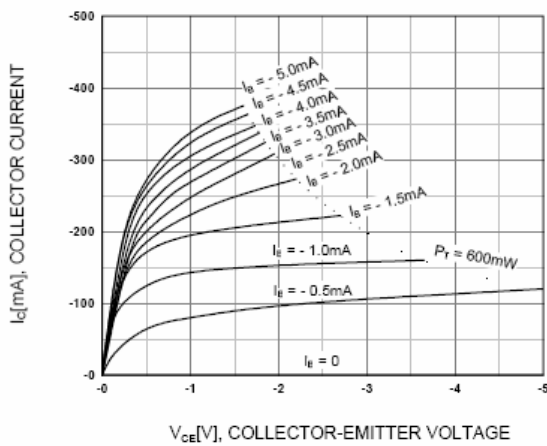


Figure 1. Static Characteristic

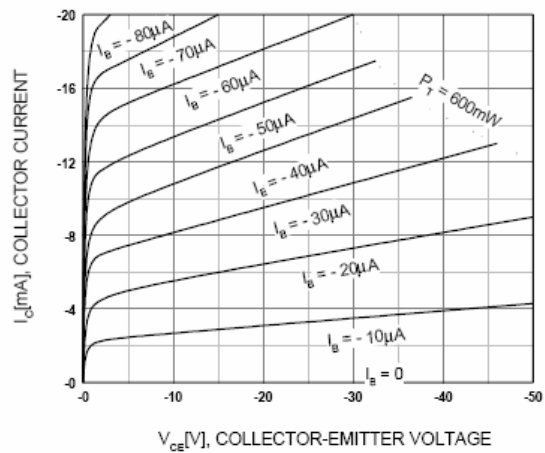


Figure 2. Static Characteristic

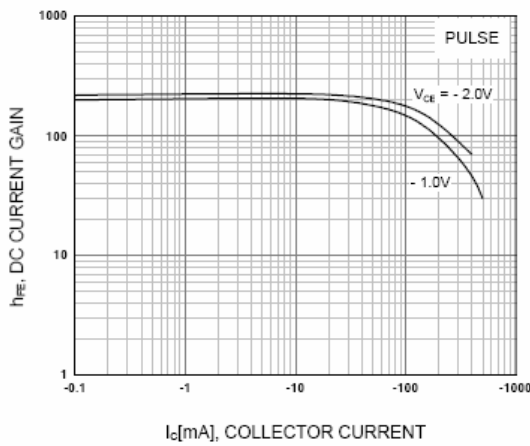


Figure 3. DC current Gain

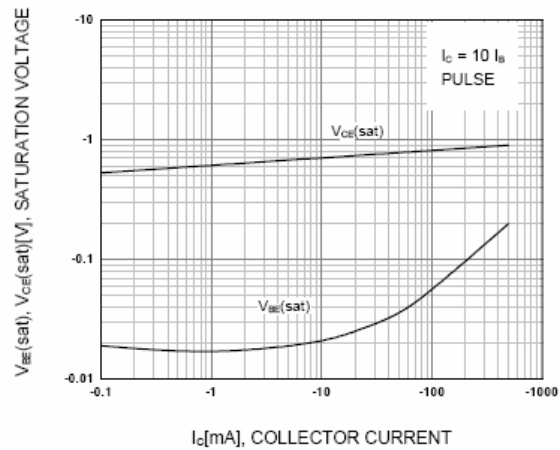


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

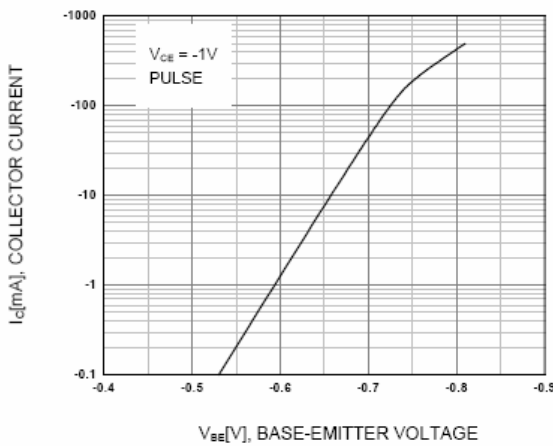


Figure 5. Base-Emitter On Voltage

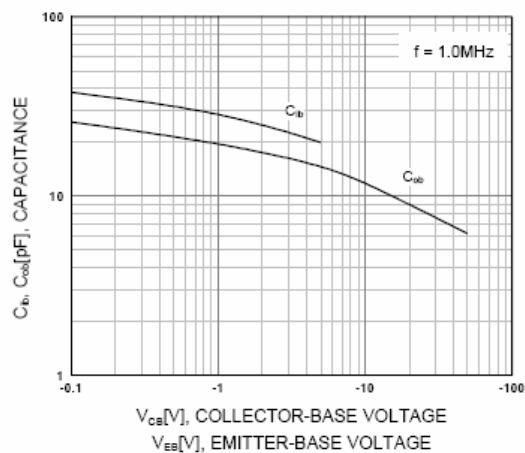


Figure 6. Input Output Capacitance

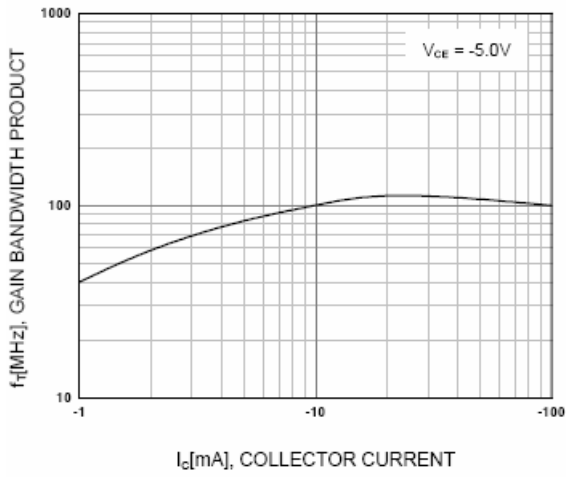


Figure 7. Current Gain Bandwidth Product