

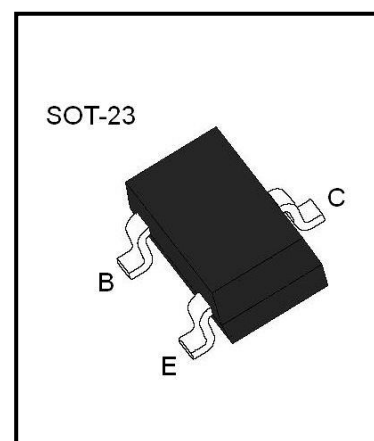
NPN General Purpose Amplifier

FEATURES

- Switching and Amplifier Applications
- Suitable for AF-Driver stages and low power output stages
- Complement to BC807

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	50	V
Collector-Emitter Voltage	BV_{CEO}	45	V
Emitter-Base Voltage	BV_{EBO}	5	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_D	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	50			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	45			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 25V, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			100	nA
DC current gain	h_{FE1}	$V_{CE} = 1V, I_C = 50mA$	100		630	
	h_{FE2}	$V_{CE} = 1V, I_C = 150mA$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.7	V
Base-emitter saturation voltage	$V_{BE(on)}$	$V_{CE} = 1V, I_C = 300mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 5V, I_C = 10mA$ $f=50MHz$	50			MHz

h_{FE} Classification

Classification	16	25	40
h_{FE}	100-250	160-400	250-630
Marking	6A	6B	6C

Typical Characteristics

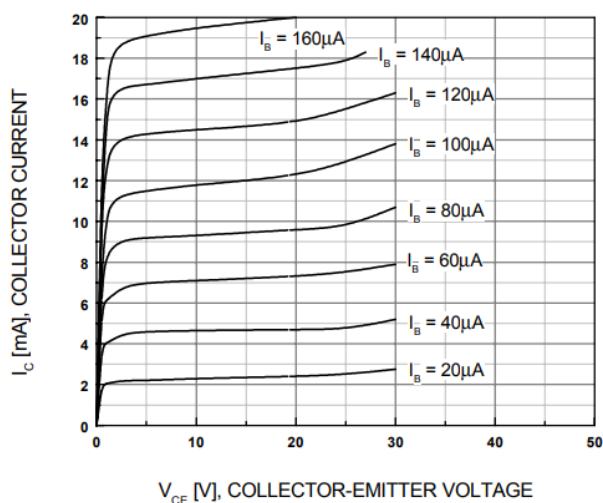


Figure 1. Static Characteristic

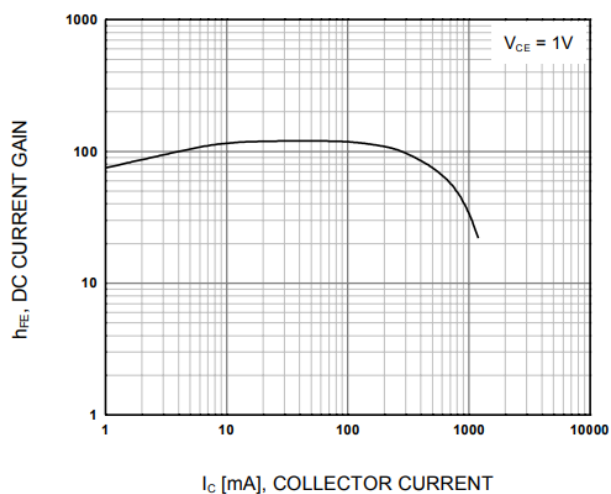


Figure 2. DC current Gain

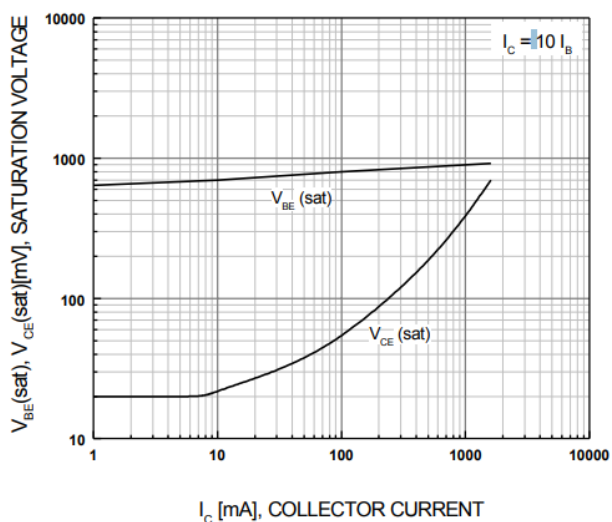
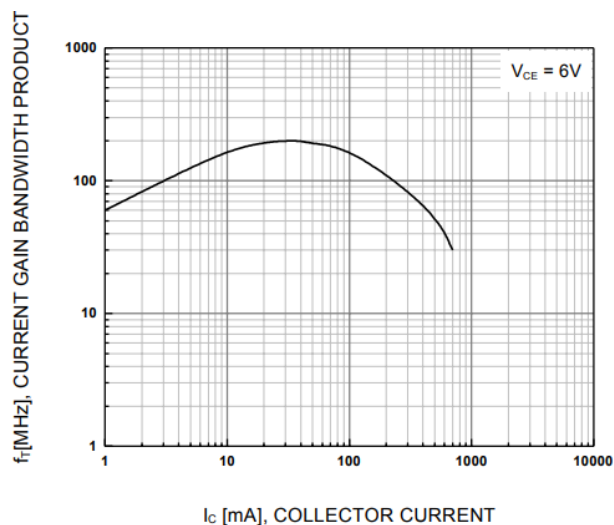
Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

Figure 4. Current Gain Bandwidth Product

Package Dimensions (Unit:mm)

