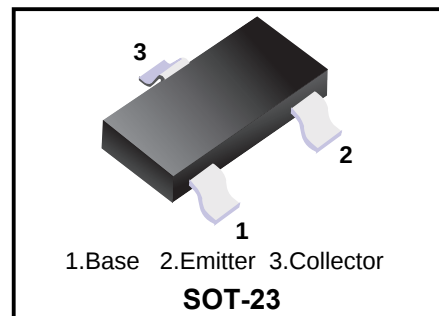


NPN Darlington Transistors

for preamplifier input applications



Product Specification Classification

Part Number	Package	Marking	Pack
BCV27	SOT-23	FF	3000PCS/Tape
BCV47	SOT-23	FG	3000PCS/Tape

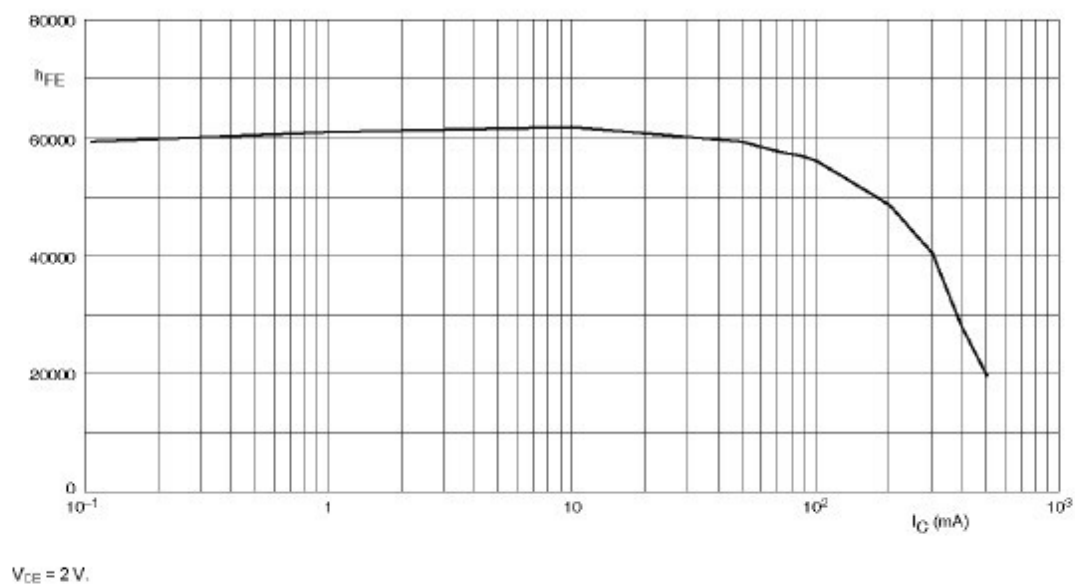
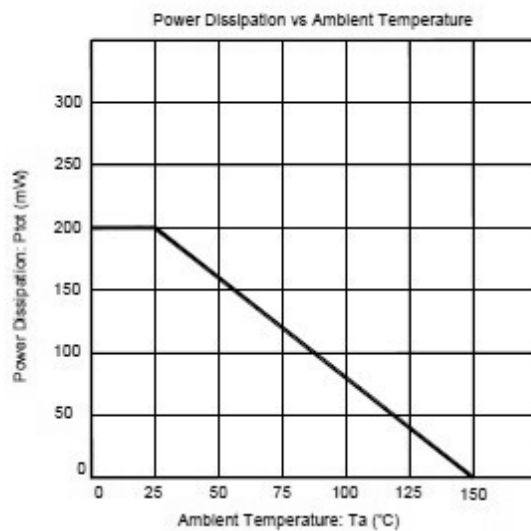
Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40 80	V
Collector Emitter Voltage	V_{CEO}	30 60	V
Emitter Base Voltage	V_{EBO}	10	V
Collector Current	I_C	500	mA
Peak Collector Current	I_{CM}	800	mA
Base Current	I_B	100	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_s	-65 to +150	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at $V_{CE} = 5\text{ V}$, $I_C = 1\text{ mA}$	h_{FE}	4000	-	-	-
at $V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$	h_{FE}	2000	-	-	-
at $V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$	h_{FE}	10000	-	-	-
Collector Cutoff Current					
at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	100	nA
at $V_{CB} = 60\text{ V}$	I_{CBO}	-	-	100	nA
Emitter Cutoff Current					
at $V_{EB} = 10\text{ V}$	I_{EBO}	-	-	100	nA
Collector Base Breakdown Voltage					
at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	40 80	-	-	V
Collector Emitter Breakdown Voltage					
at $I_C = 10\text{ mA}$	$V_{(BR)CEO}$	30 60	-	-	V
Emitter Base Breakdown Voltage					
at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	10	-	-	V
Collector Emitter Saturation Voltage					
at $I_C = 100\text{ mA}$, $I_B = 0.1\text{ mA}$	$V_{CE(sat)}$	-	-	1	V
Base Emitter Saturation Voltage					
at $I_C = 100\text{ mA}$, $I_B = 0.1\text{ mA}$	$V_{BE(sat)}$	-	-	1.5	V
Base Emitter On-state Voltage					
at $I_C = 10\text{ mA}$, $V_{CE} = 5\text{ V}$	$V_{BE(on)}$	-	-	1.4	V
Transition Frequency					
at $V_{CE} = 5\text{ V}$, $I_C = 30\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	220	-	MHz

Typical Characteristics

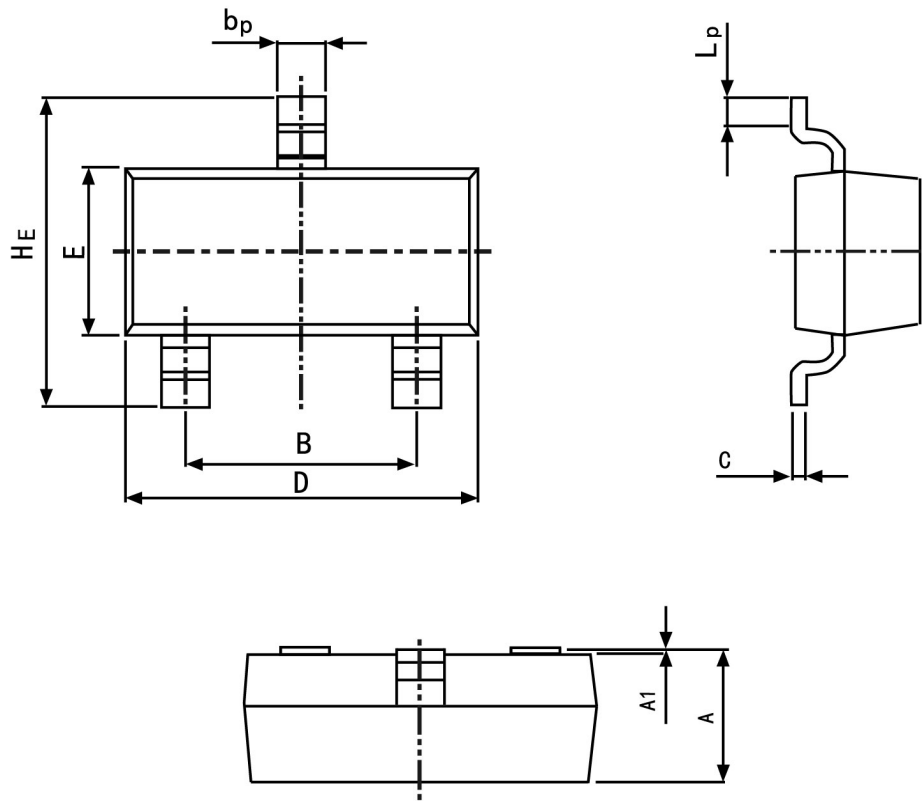


DC current gain; typical values.

Package Outline

SOT-23

Plastic surface mounted package; 3 leads



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
bp	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
Lp	0.20	0.50