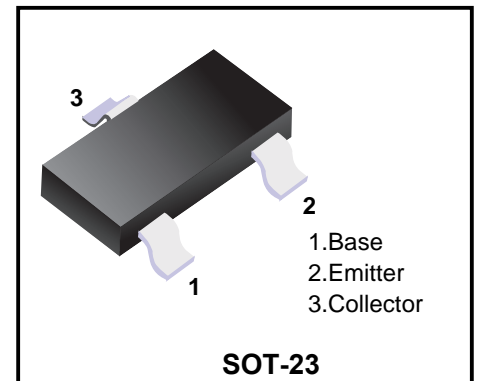


**NPN Darlington Transistors**

for preamplifier input applications

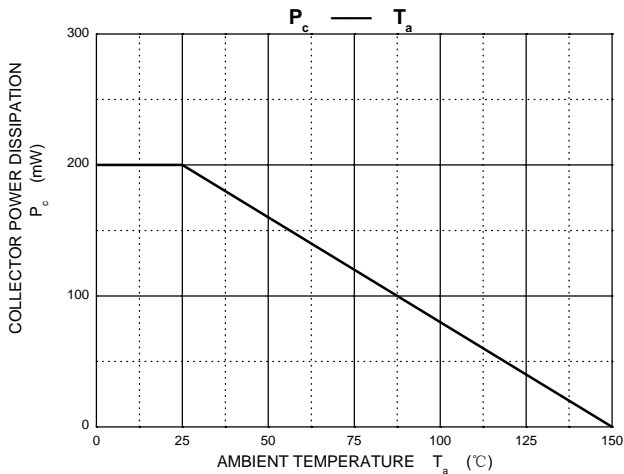
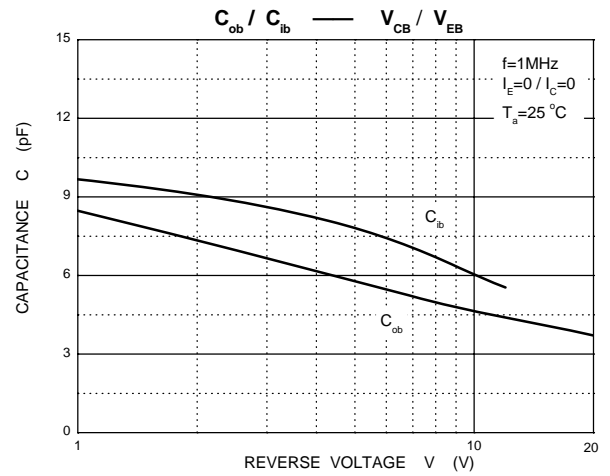
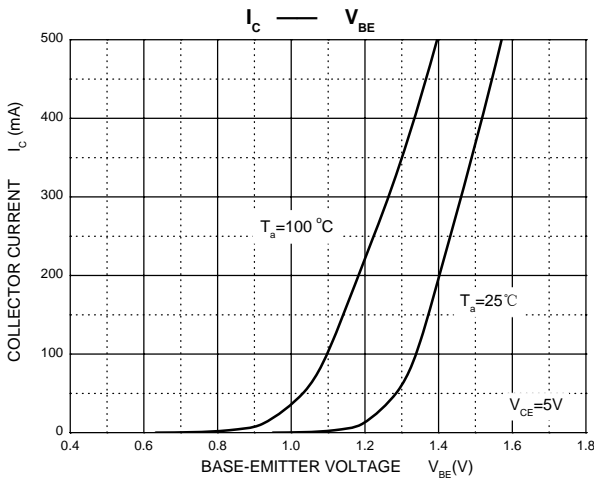
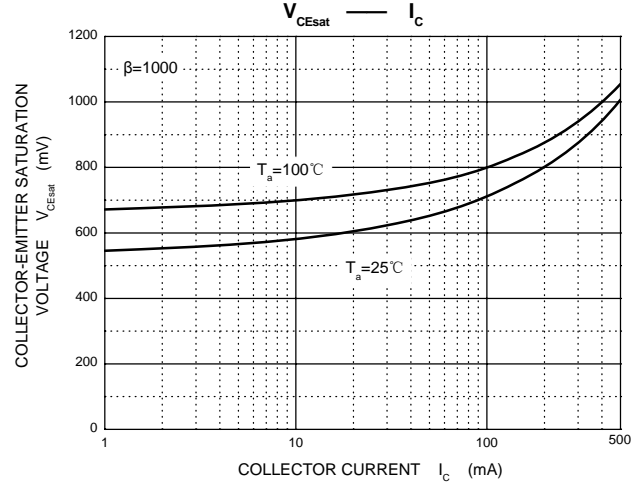
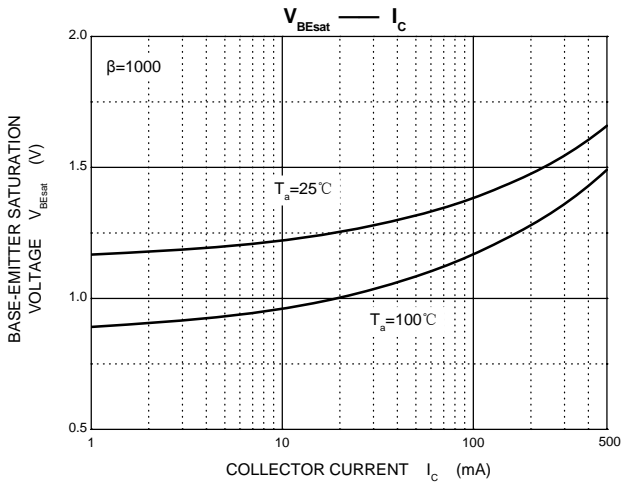
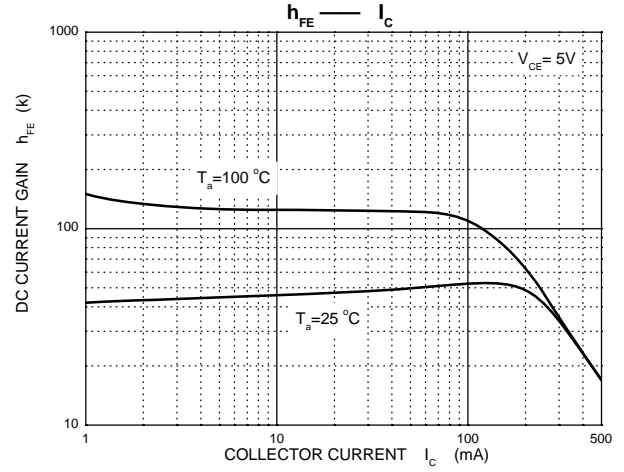
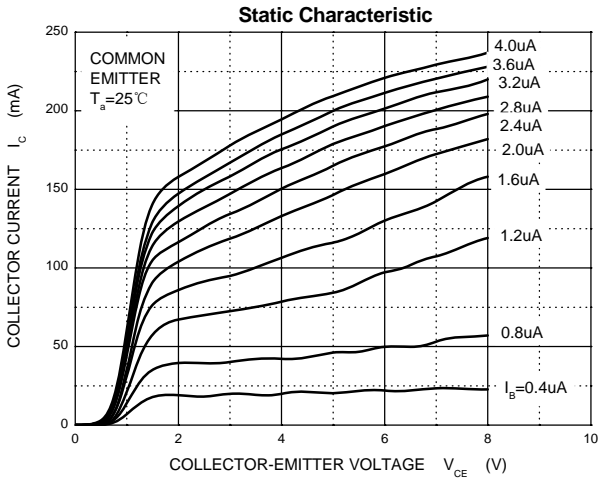
Marking Code	
BCV27	FF
BCV47	FG


**Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Value	Unit
Collector Base Voltage	BCV27 BCV47	40 80	V
Collector Emitter Voltage	BCV27 BCV47	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 $V_{CE} = 5\text{ V}$ , $I_C = 1\text{ mA}$	BCV27 BCV47	$h_{FE}$ $h_{FE}$	4000 2000	- -	- -
at $V_{CE} = 5\text{ V}$ , $I_C = 10\text{ mA}$	BCV27 BCV47	$h_{FE}$ $h_{FE}$	10000 4000	- -	- -
at $V_{CE} = 5\text{ V}$ , $I_C = 100\text{ mA}$	BCV27 BCV47	$h_{FE}$ $h_{FE}$	20000 10000	- -	- -
Collector Cutoff Current					
at $V_{CB} = 30\text{ V}$	BCV27	$I_{CBO}$	-	100	nA
at $V_{CB} = 60\text{ V}$	BCV47	$I_{CBO}$	-	100	nA
Emitter Cutoff Current					
at $V_{EB} = 10\text{ V}$		$I_{EBO}$	-	100	nA
Collector Base Breakdown Voltage					
at $I_C = 100\text{ }\mu\text{A}$	BCV27 BCV47	$V_{(BR)CBO}$	40 80	- -	V
Collector Emitter Breakdown Voltage					
at $I_C = 10\text{ mA}$	BCV27 BCV47	$V_{(BR)CEO}$	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



**Ordering information**

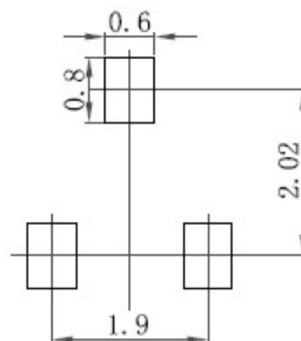
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**Package Dimensions**

**SOT-23**

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

**The recommended mounting pad size**



## Disclaimer

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