

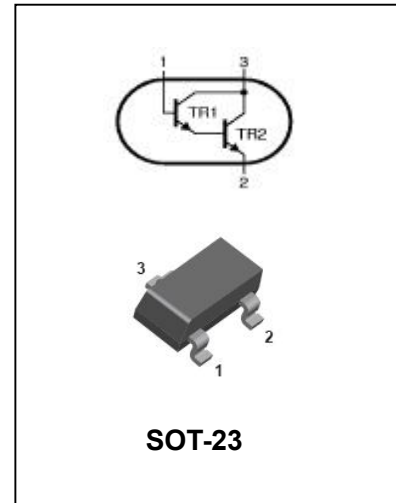
NPN Darlington Amplifier Transistor

FEATURES

- Complementary to BCV26,BCV46.
- High collector current.
- High current gain.
- For general AF applications.
- Complementary types:BCV26,BCV46

APPLICATIONS

- NPN silicon darlington transistor.



ORDERING INFORMATION

Type No.	Marking	Package Code
BCV27	FF	SOT-23
BCV47	FG	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

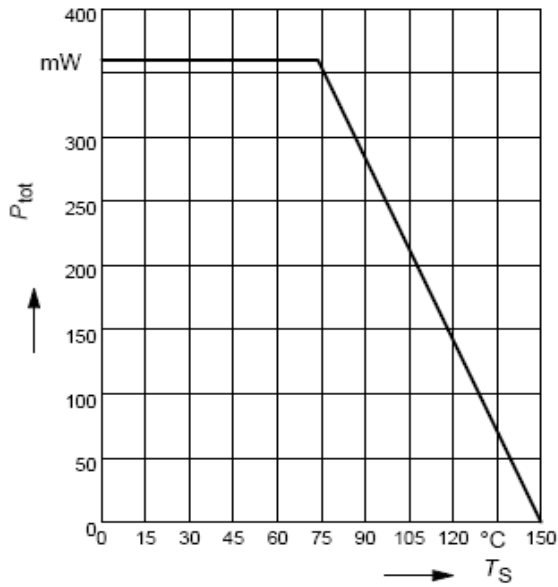
Symbol	Parameter	BCV27	BCV47	Units
V _{CBO}	Collector-Base Voltage	40	80	V
V _{CEO}	Collector-Emitter Voltage	30	60	V
V _{EBO}	Emitter-Base Voltage	10	10	V
I _C	Collector Current -DC	500		mA
I _{CM}	Collector Current –Peak	800		mA
I _B	Base Current -DC	100		mA
I _{BM}	Base Current –Peak	200		mA
P _C	Collector Dissipation	350		mW
T _J , T _{stg}	Junction and Storage Temperature	-65 to +150		°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

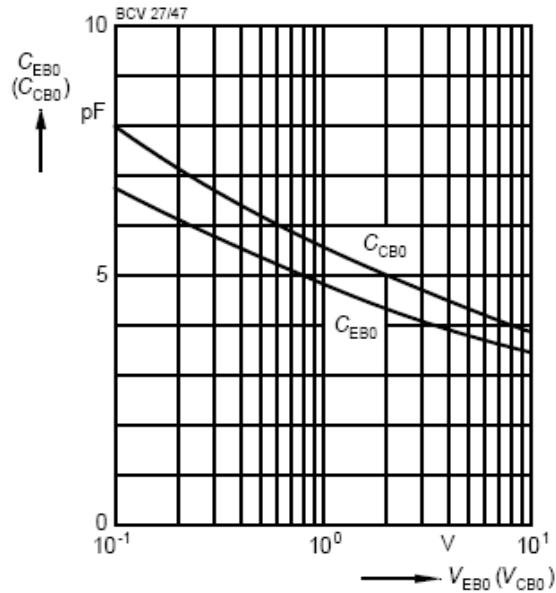
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$ BCV27 BCV47	40 80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$ BCV27 BCV47	30 60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	10			V
Collector cutoff current	I_{CBO}	$V_{CB}=30V, I_E=0$ BCV27 $V_{CB}=60V, I_E=0$ BCV47			0.1 0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V, I_C=100\mu A$ BCV27 BCV47	4000 2000			
DC current gain	h_{FE}	$V_{CE}=5V, I_C=10mA$ BCV27 BCV47	10k 4000			
DC current gain	h_{FE}	$V_{CE}=5V, I_C=0.1A$ BCV27 BCV47	20k 10k			
DC current gain	h_{FE}	$V_{CE}=5V, I_C=0.5A$ BCV27 BCV47	4000 2000			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=0.1mA$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=0.1mA$			1.5	V
Transition frequency	f_T	$V_{CE}=5V, I_C=50mA$ $f=100MHz$		170		MHz
Collector-base capacitance	C_{cb}	$V_{CB}=10V, f=1MHz$		3.5		pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Total power dissipation $P_{tot} = f(T_S)$

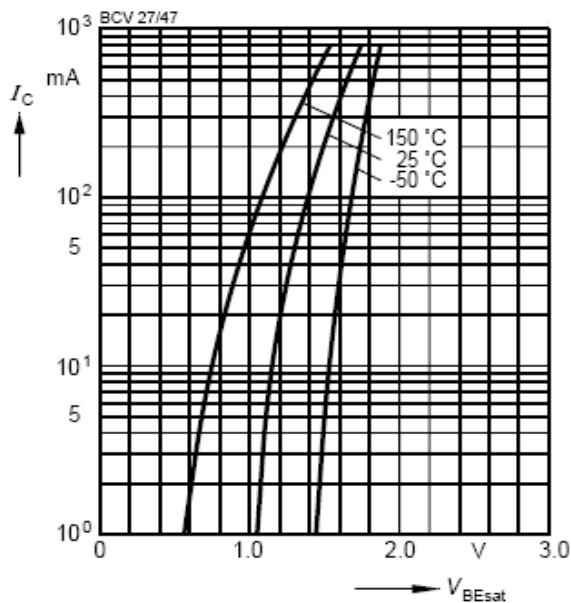


**Collector-base capacitance $C_{CB} = f(V_{CB0})$
Emitter-base capacitance $C_{EB} = f(V_{EB0})$**



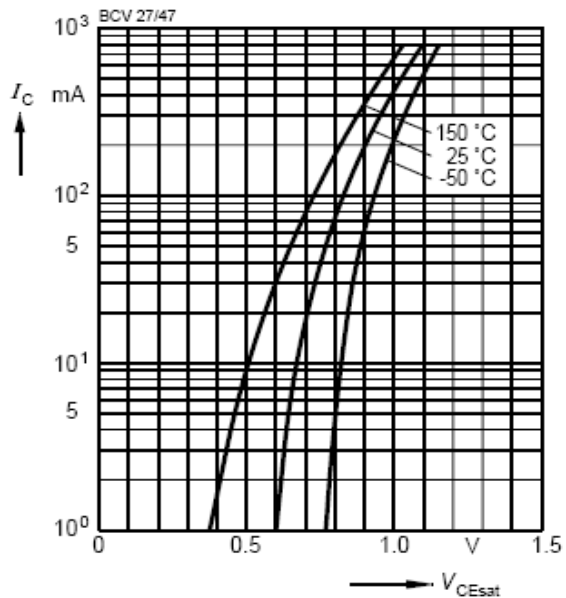
Base-emitter saturation voltage

$I_C = f(V_{BEsat}), h_{FE} = 1000$



Collector-emitter saturation voltage

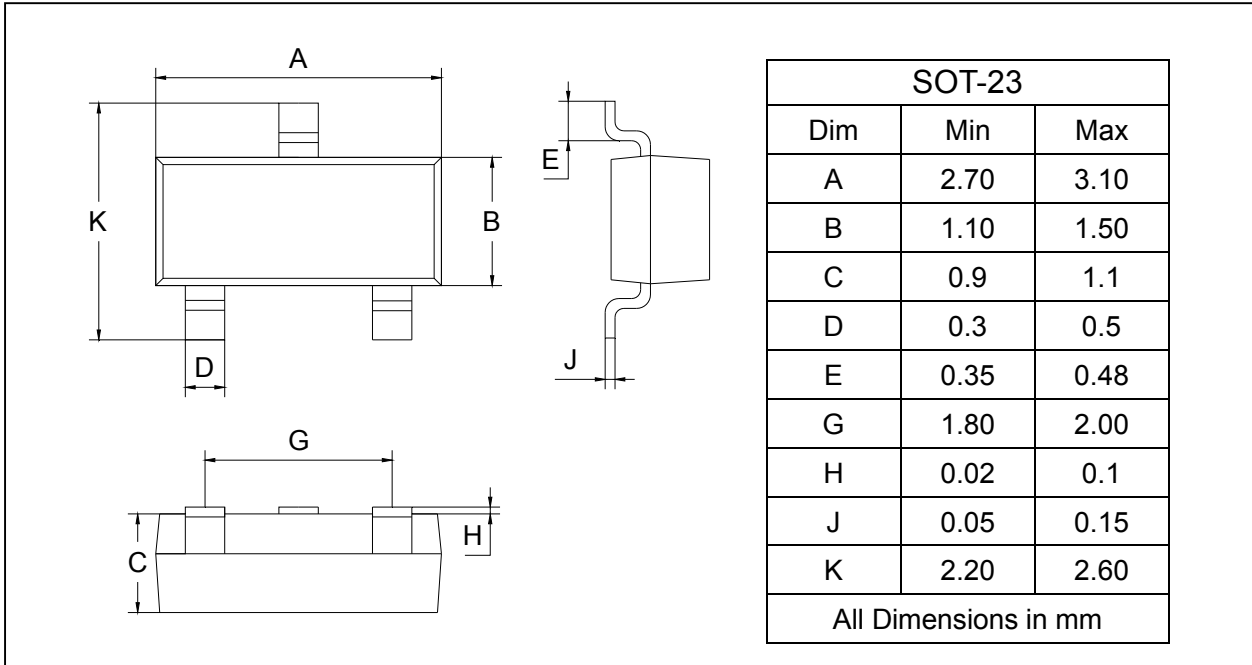
$I_C = f(V_{CEsat}), h_{FE} = 1000$



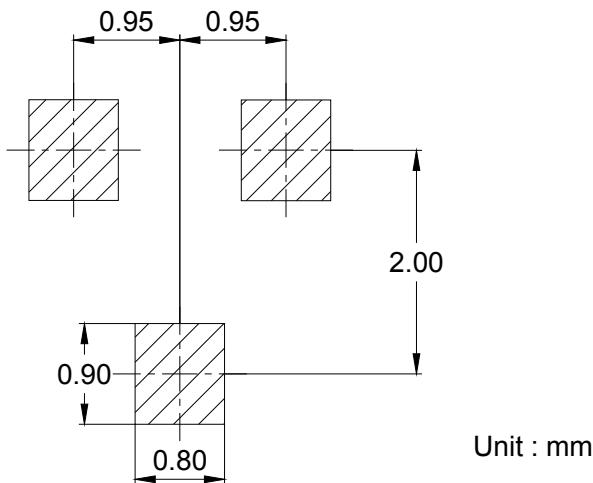
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BCV27/BCV47	SOT-23	3000/Tape&Reel