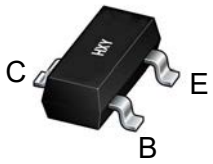
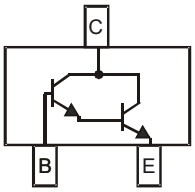
Features

- High Collector Current
- High Current Gain



SOT-23



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BCV27	SOT-23	FF	3000
BCV47	SOT-23	FH	3000

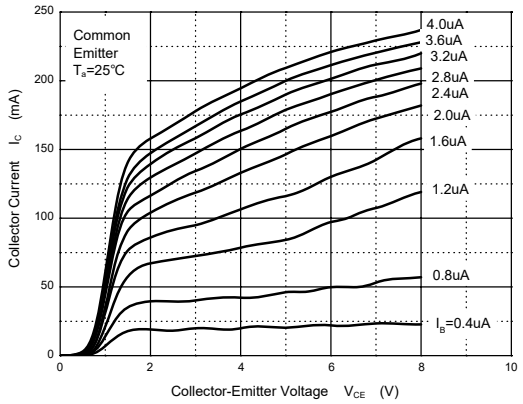
Maxmim Ratings (Ta=25℃unless otherwise noted)

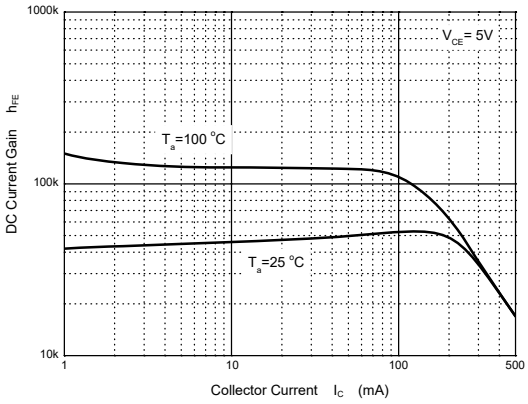
Parameter		Symbol	Value	Unit
Collector Base Voltage	BCV27 BCV47	V_{CBO}	40 80	V
Collector Emitter Voltage	BCV27 BCV47	V_{CEO}	30 60	V
Emitter Base Voltage		V_{EBO}	10	V
Collector Current		I_C	500	mA
Peak Collector Current		I_{CM}	800	mA
Base Current		I_B	100	mA
Maximum Power Dissipation		P_D	200	mW
Junction Temperature		T_J	150	℃
Storage Temperature Range		T_{STG}	-65 to +150	℃

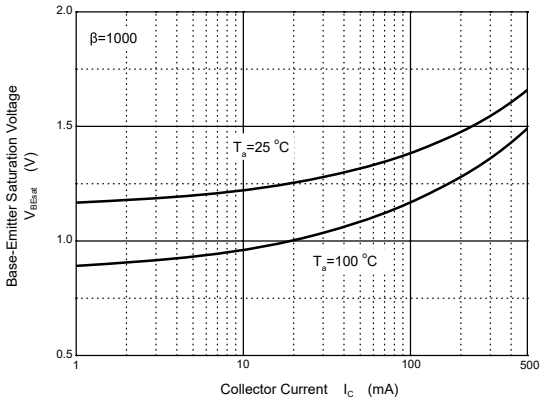
Electrcal Charcteristics (Ta=25℃unless otherwise specified)

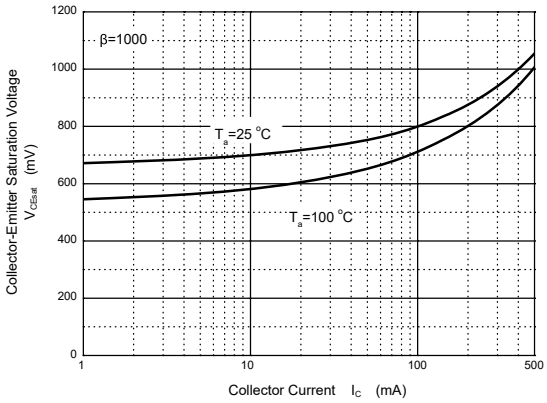
Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at V_{CE} = 5 V, I_C = 1 mA	BCV27		4000	--	--	
	BCV47		2000	--	--	
at V_{CE} = 5 V, I_C = 10 mA	BCV27	H_{FE}	10000	--	--	--
	BCV47		4000	--	--	
at V_{CE} = 5 V, I_C = 100 mA	BCV27		20000	--	--	
	BCV47		10000	--	--	
Collector Base Cutoff Current						
at V_{CB} = 30V	BCV27	I_{CBO}	--	--	100	nA
at V_{CB} = 60V	BCV47		--	--	100	
Emitter Base Cutoff Current at V_{EB} = 10 V		I_{EBO}	--	--	100	nA
Collector Base Breakdown Voltage						
at I_C = 100 μA	BCV27	$V_{(BR)CBO}$	40	--	--	V
	BCV47		80	--	--	
Collector Emitter Breakdown Voltage						
at I_C = 10 mA	BCV27	$V_{(BR)CEO}$	30	--	--	V
	BCV47		60	--	--	
Emitter Base Breakdown Voltage at I_E = 10 μA		$V_{(BR)EBO}$	10	--	--	V
Collector Emitter Saturation Voltage at I_C = 100 mA, I_B = 0.1 mA		$V_{CE(sat)}$	--	--	1	V
Base Emitter Saturation Voltage at I_C = 100 mA, I_B = 0.1 mA		$V_{BE(sat)}$	--	--	1.5	V
Base Emitter On Voltage at V_{CE} = 5 V, I_C = 10 mA		$V_{BE(on)}$	--	--	1.4	V
Transition Frequency at V_{CE} = 5 V, I_C = 30 mA, f = 100 MHz		F_T	--	220	--	MHz

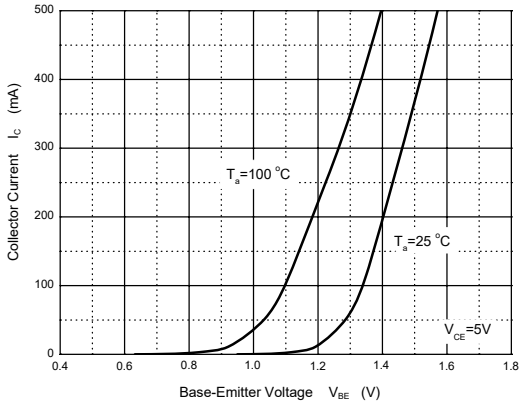
Typical Characteristics

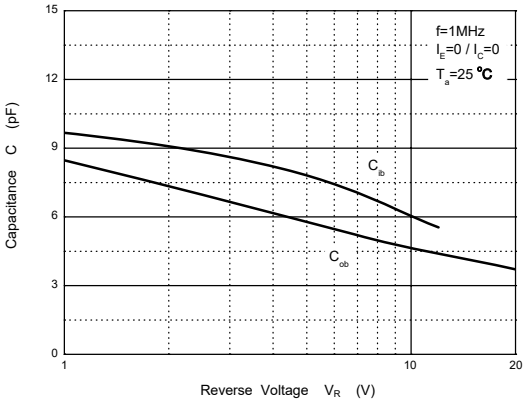


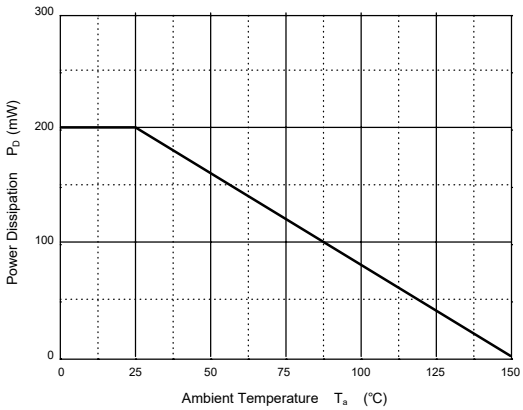




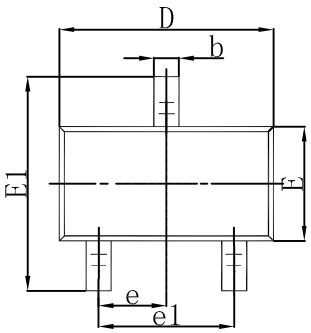


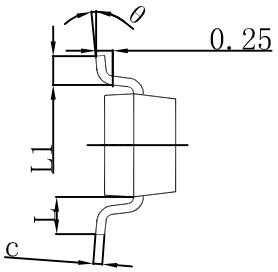


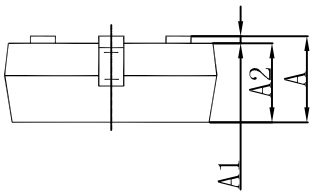




SOT-23 Package Outline Dimensions

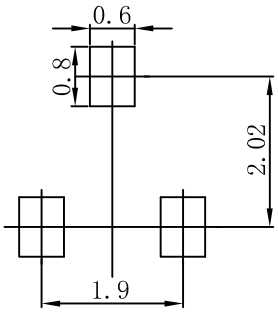






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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