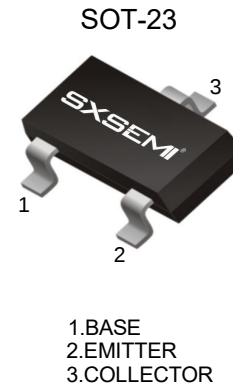


FEATURES

- High DC current gain. h_{FE} :200 TYP.($V_{CE}=-1V, I_C=-100mA$)
- Complimentary to 2SD596.

MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-700	mA
P_D	Total Device Dissipation	200	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	$^{\circ}C$



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-30V, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5V, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=-1V, I_C=-100mA$	110		400	
	$h_{FE(2)}^*$	$V_{CE}=-1V, I_C=-700mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-700mA, I_B=-70mA$			-0.6	V
Base-emitter voltage	V_{BE}^*	$V_{CE}=-6V, I_C=-10mA$	-0.6		-0.7	V
Transition frequency	f_T	$V_{CE}=-6V, I_C=-10mA$		160		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-6V, I_E=0, f=1MHz$		17		pF

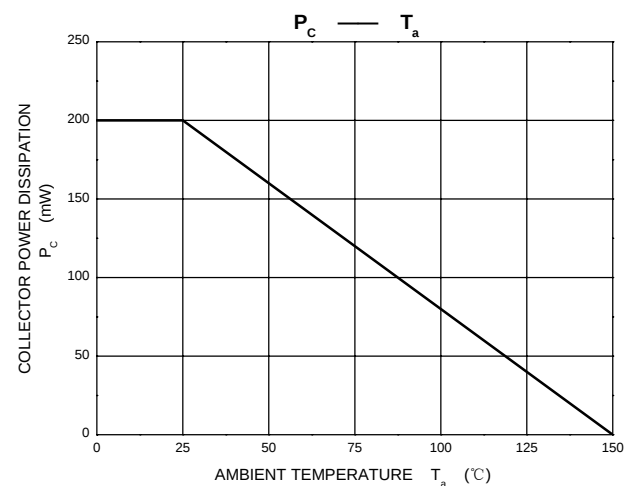
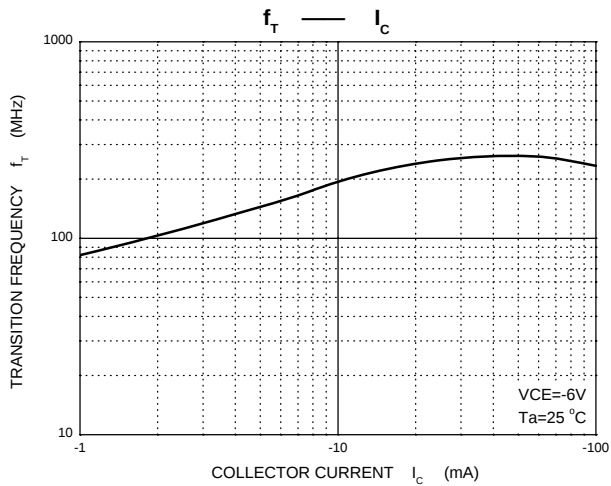
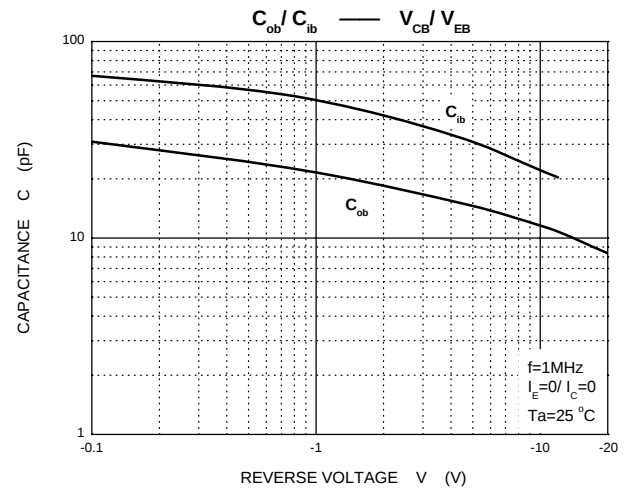
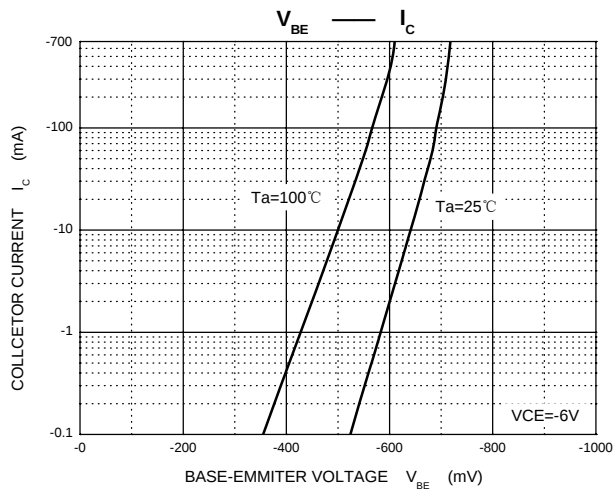
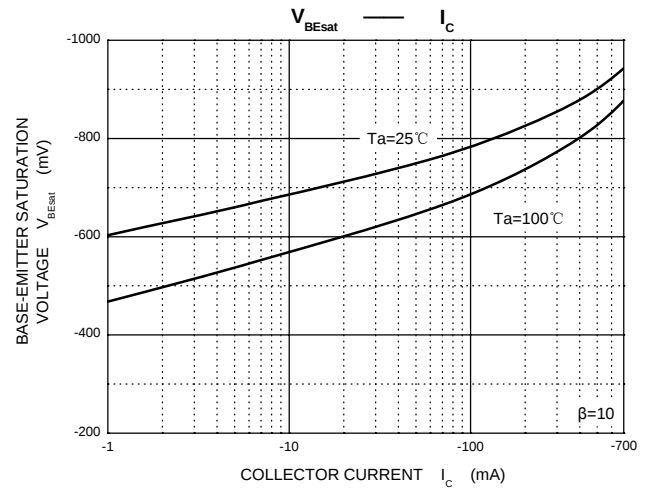
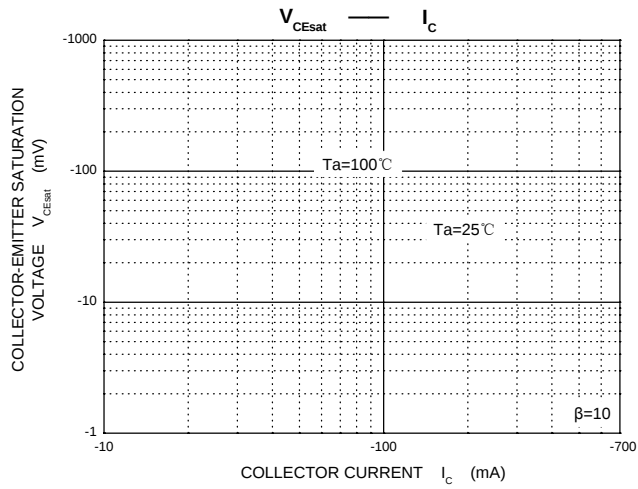
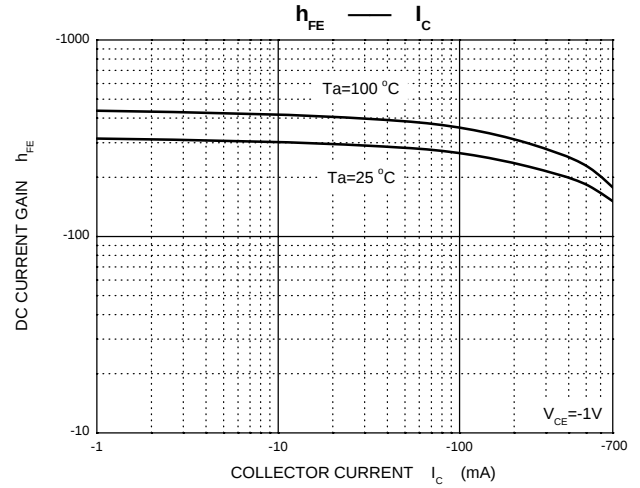
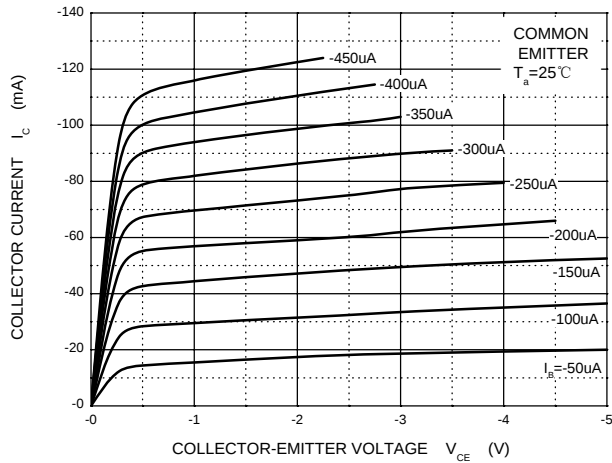
* Pulse test : Pulse width $\leq 350\mu s$, Duty Cycle $\leq 2\%$.

CLASSIFICATION OF $h_{FE(1)}$

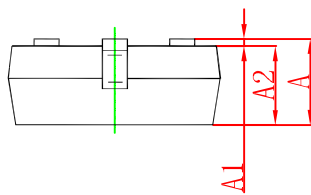
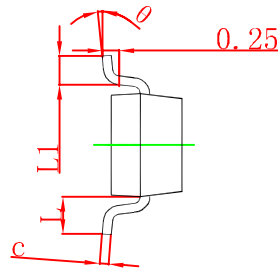
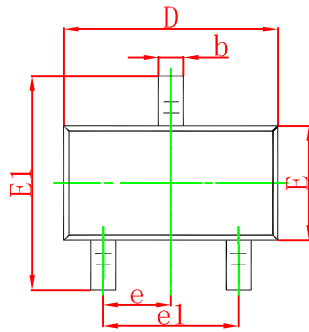
Marking	BV1	BV2	BV3	BV4	BV5
Range	110-180	135-220	170-270	200-320	250-400

Typical Characteristics

Static Characteristic

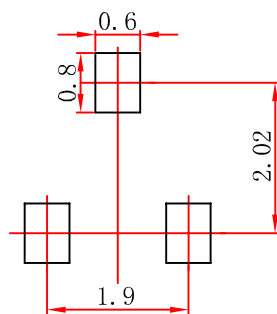


SOT-23 Package Outline Dimensions



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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.