



SBT2222AF

NPN Silicon Transistor

Descriptions

- General purpose application
- Switching application

Features

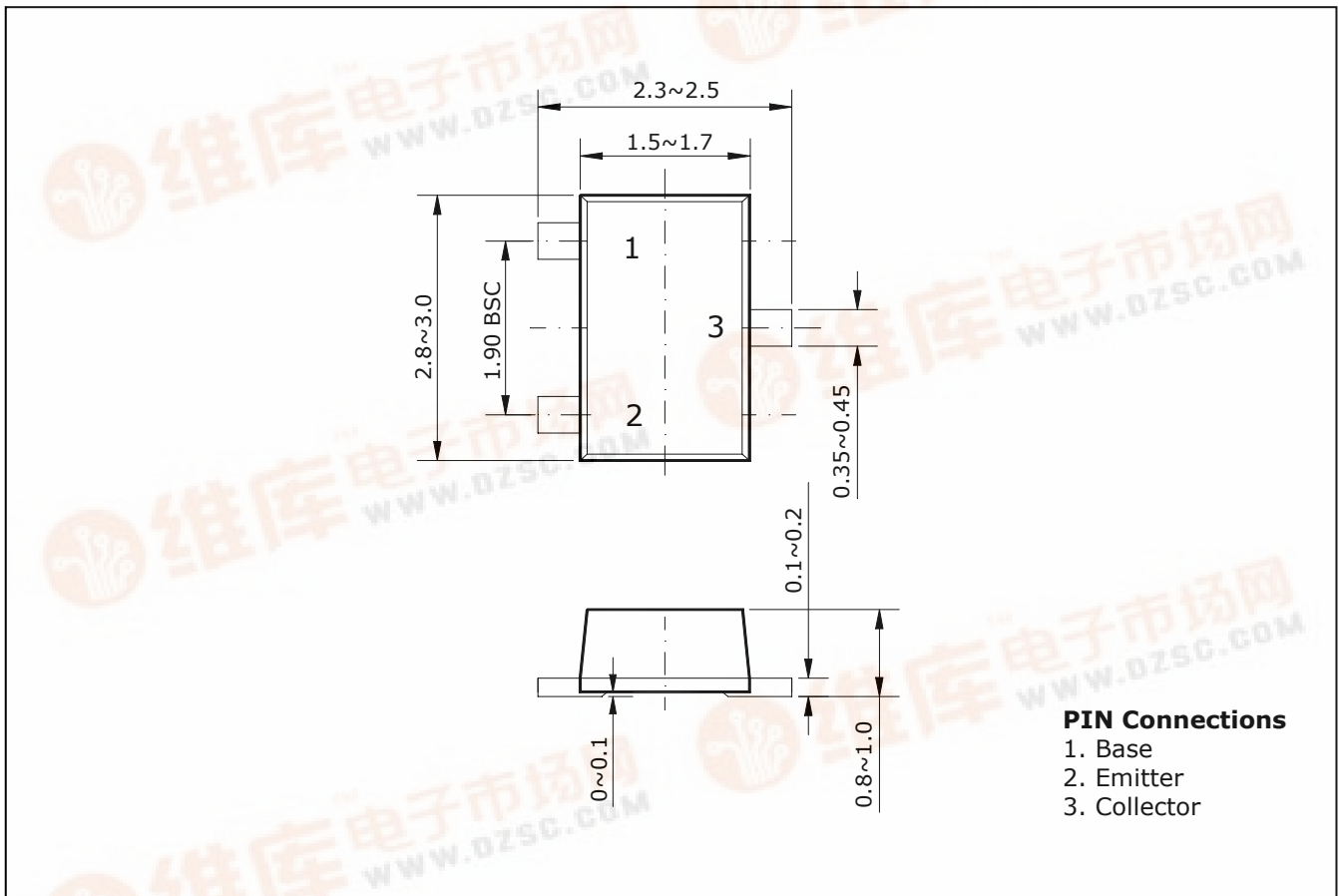
- Low Leakage current
- Low collector saturation voltage enabling low voltage operation
- Complementary pair with SBT2907AF

Ordering Information

Type NO.	Marking	Package Code
SBT2222AF	1P	SOT-23F

Outline Dimensions

unit : mm



SBT2222AF

Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V _{CBO}	75	V
Collector-Emitter voltage	V _{CEO}	40	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _C	600	mA
Collector dissipation	P _C *	350	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55~150	°C

* : Package mounted on 99.5% alumina 10×8×0.6mm

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV _{CBO}	I _C =10μA, I _E =0	75	-	-	V
Collector-Emitter breakdown voltage	BV _{CEO}	I _C =1mA, I _B =0	40	-	-	V
Emitter-Base breakdown voltage	BV _{EBO}	I _E =10μA, I _C =0	5	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} =75V, I _E =0	-	-	20	nA
DC current gain	h _{FE}	V _{CE} =10V, I _C =10mA	100	-	-	-
Collector-Emitter saturation voltage	V _{CE(sat)}	I _C =150mA, I _B =15mA	-	-	0.4	V
Transition frequency	f _T	V _{CE} =20V, I _C =20mA, f=100MHz	250	-	-	MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz	-	-	8	pF
Delay time	t _d	V _{CC} =30V _{dcr} , V _{BE(off)} =0.5V _{dcr} I _C =150mA _{dcr} , I _{B1} =15mA _{dc}	-	-	10	ns
Rise time	t _r		-	-	25	ns
Storage time	t _s	V _{CC} =30V _{dcr} , I _C =150mA _{dcr} I _{B1} =I _{B2} =15mA _{dc}	-	-	225	ns
Fall Time	t _f		-	-	60	ns

Electrical Characteristic Curves

Fig. 1 P_C - T_a

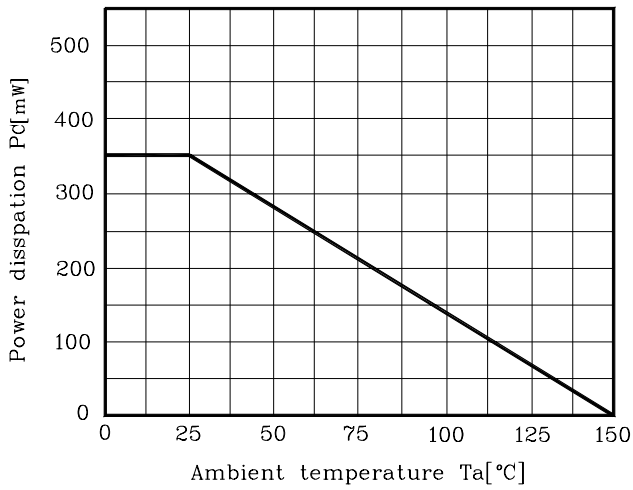


Fig. 2 h_{FE} - I_C

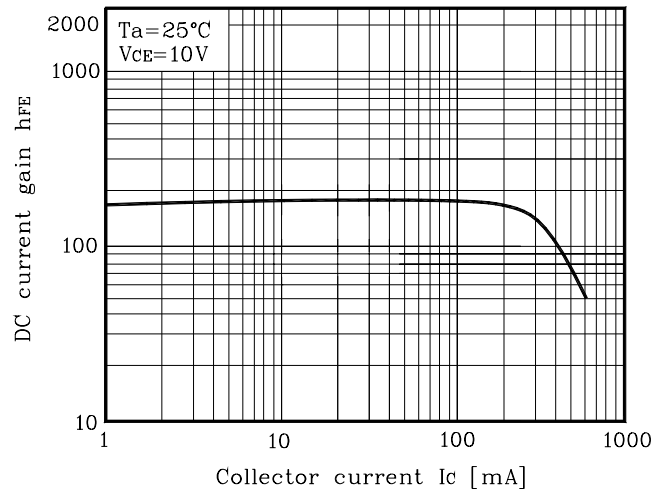


Fig. 3 $V_{CE(sat)}$ - I_C

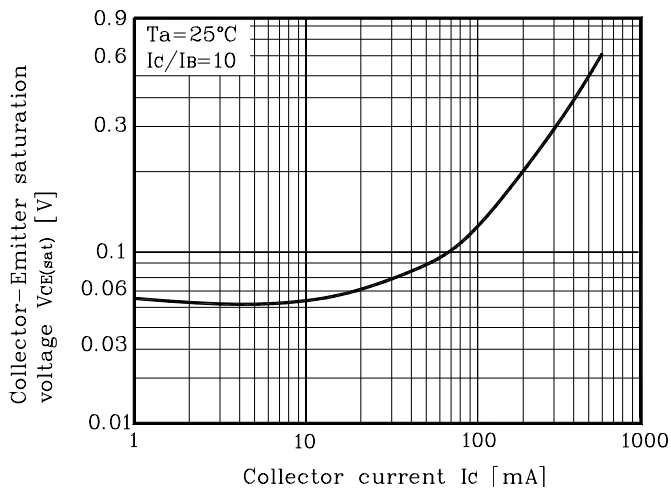
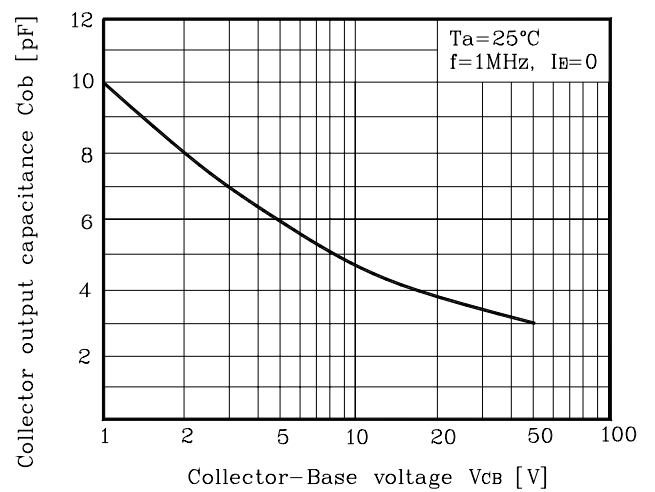


Fig. 4 C_{ob} - V_{CB}



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