

Application

- Micom Direct drive and switching Application

Features

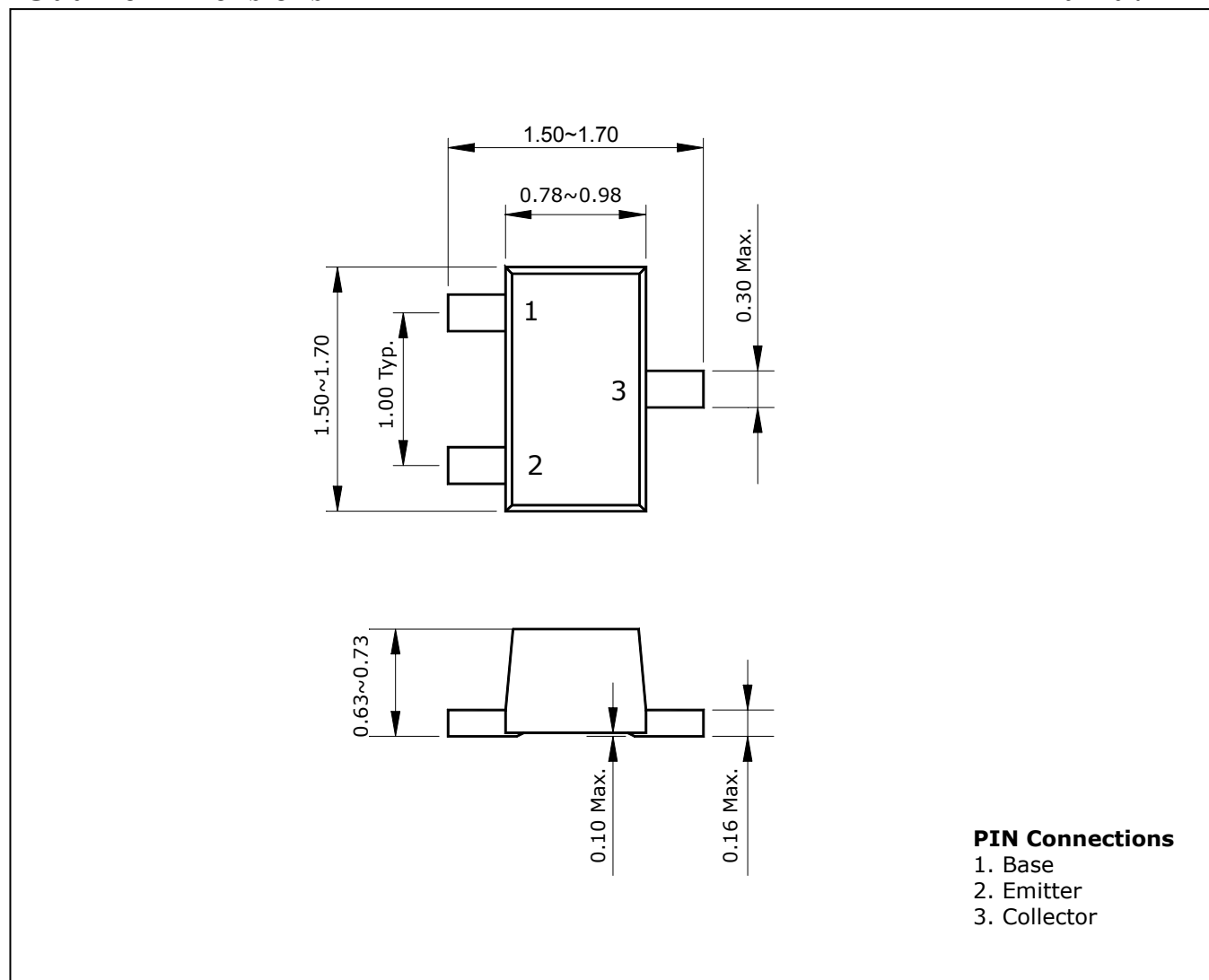
- Very low saturation voltage: $V_{CE(sat)}=0.2V$ (Max.) @ $I_C=50mA$, $I_B=5mA$
- High DC current gain: $h_{FE}=1000\sim 2500$
- Small size SMD package

Ordering Information

Type NO.	Marking	Package Code
STD6528EF	ZB	SOT-523F

Outline Dimensions

unit : mm



Absolute Maximum Ratings

Ta=25°C

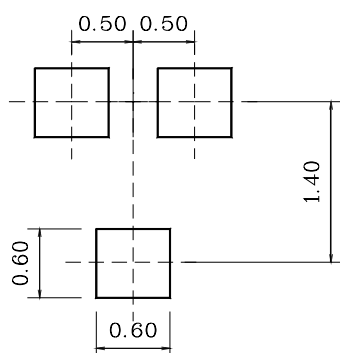
Characteristic	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	25	V
Collector-emitter voltage	V _{CEO}	20	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _C	150	mA
Collector power dissipation	P _C	150	mW
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55~150	°C

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	BV _{CEO}	I _C =1mA, I _B =0	20	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} =25V, 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}	V _{CE} =2V, I _C =4mA	1000	-	2500	-
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100 μA, I _B =10 μA	-	0.03	-	V
		I _C =50mA, I _B =5mA	-	-	0.2	
Base-emitter voltage	V _{BE}	V _{CE} =2V, I _C =4mA	-	0.6	-	V
Transition frequency	f _T	V _{CE} =10V, I _C =1mA	-	150	-	MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz	-	1.5	-	pF

※ Recommend PCB solder land [Unit: mm]



Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

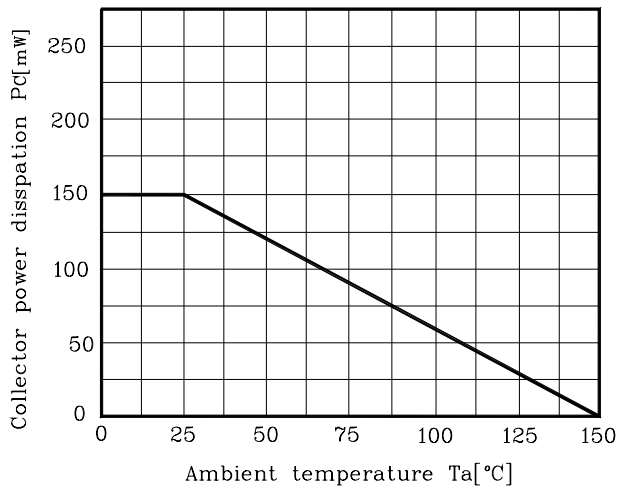


Fig. 2 $I_C - V_{BE}$

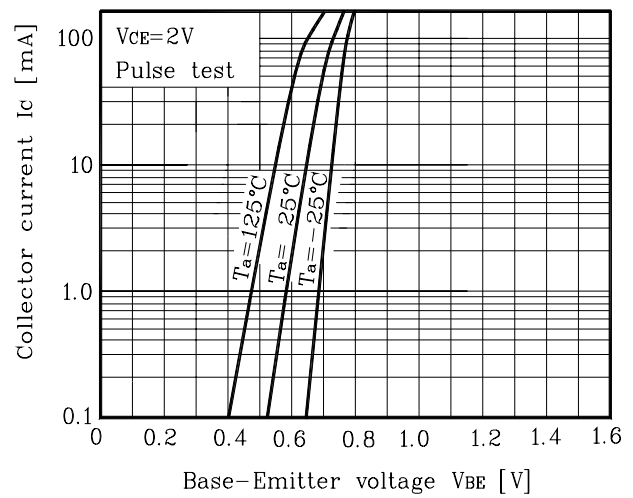


Fig. 3 $I_C - V_{CE}$

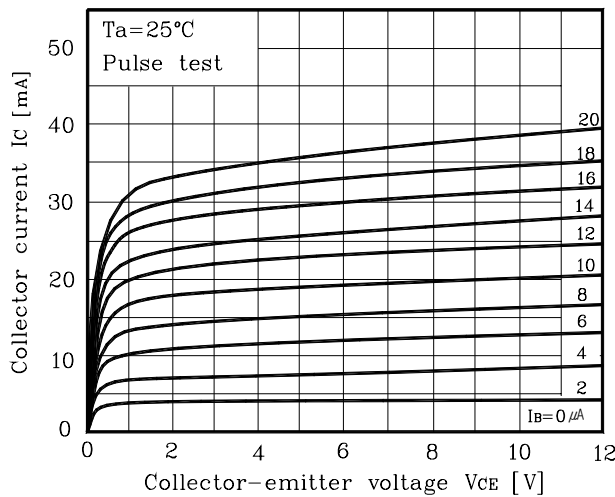


Fig. 4 $h_{FE} - I_C$

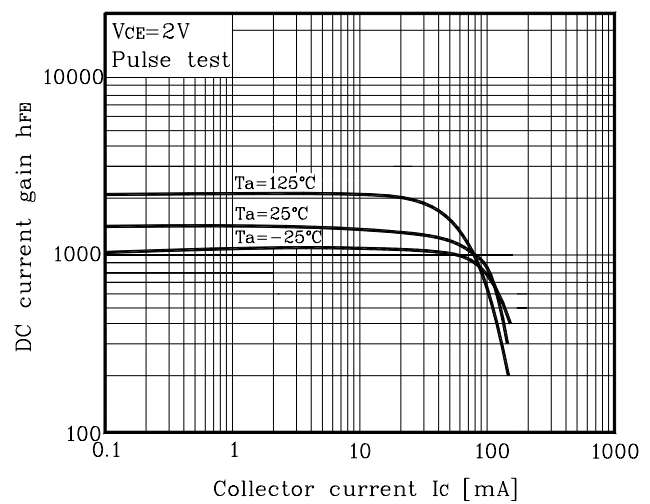


Fig. 5 $h_{FE} - I_C$

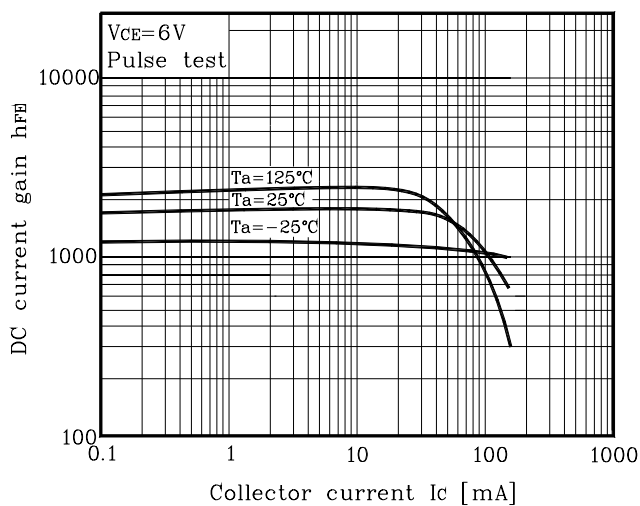
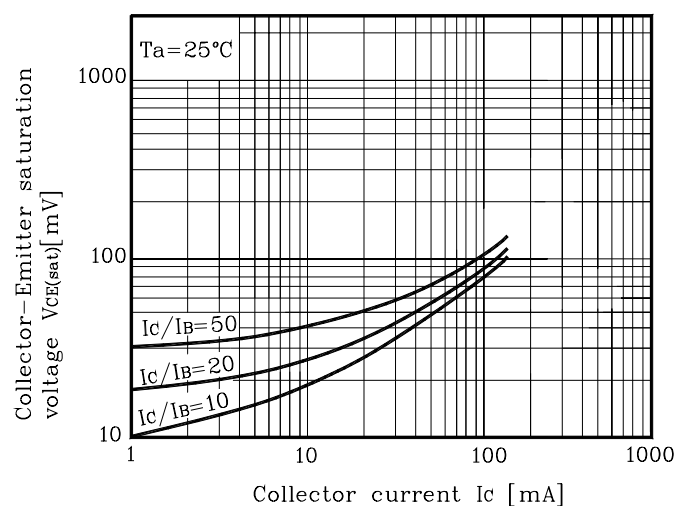


Fig. 6 $V_{CE(sat)} - I_C$



Electrical Characteristic Curves

Fig. 7 $C_{ob} - V_{CB}$

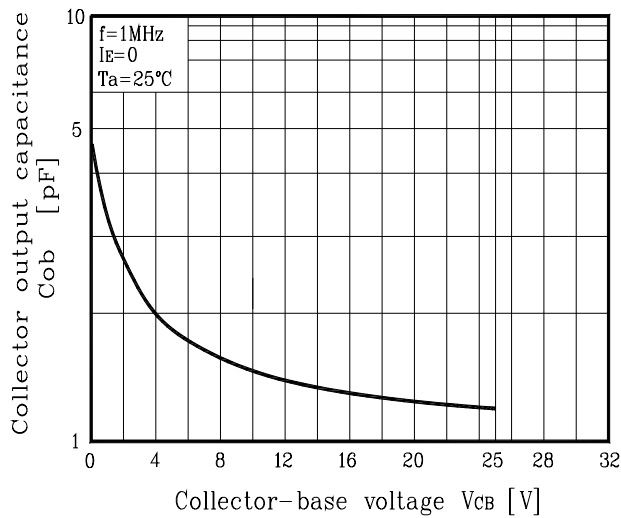
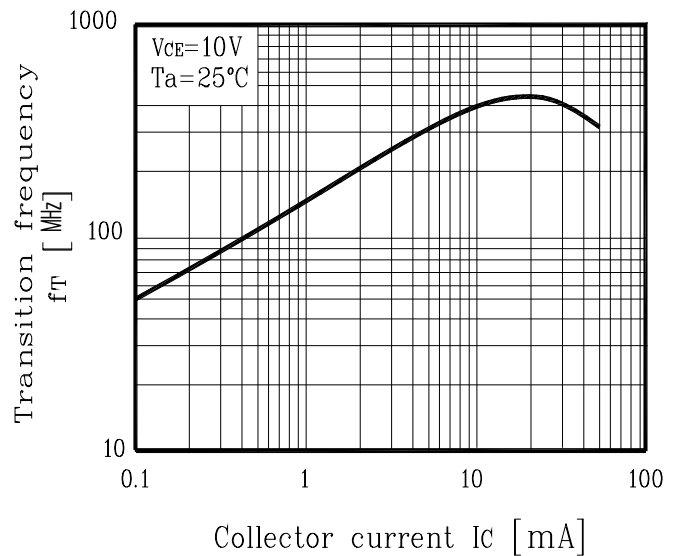


Fig. 8 $f_T - I_C$



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