

**Application**

- Micom Direct drive and switching Application

**Features**

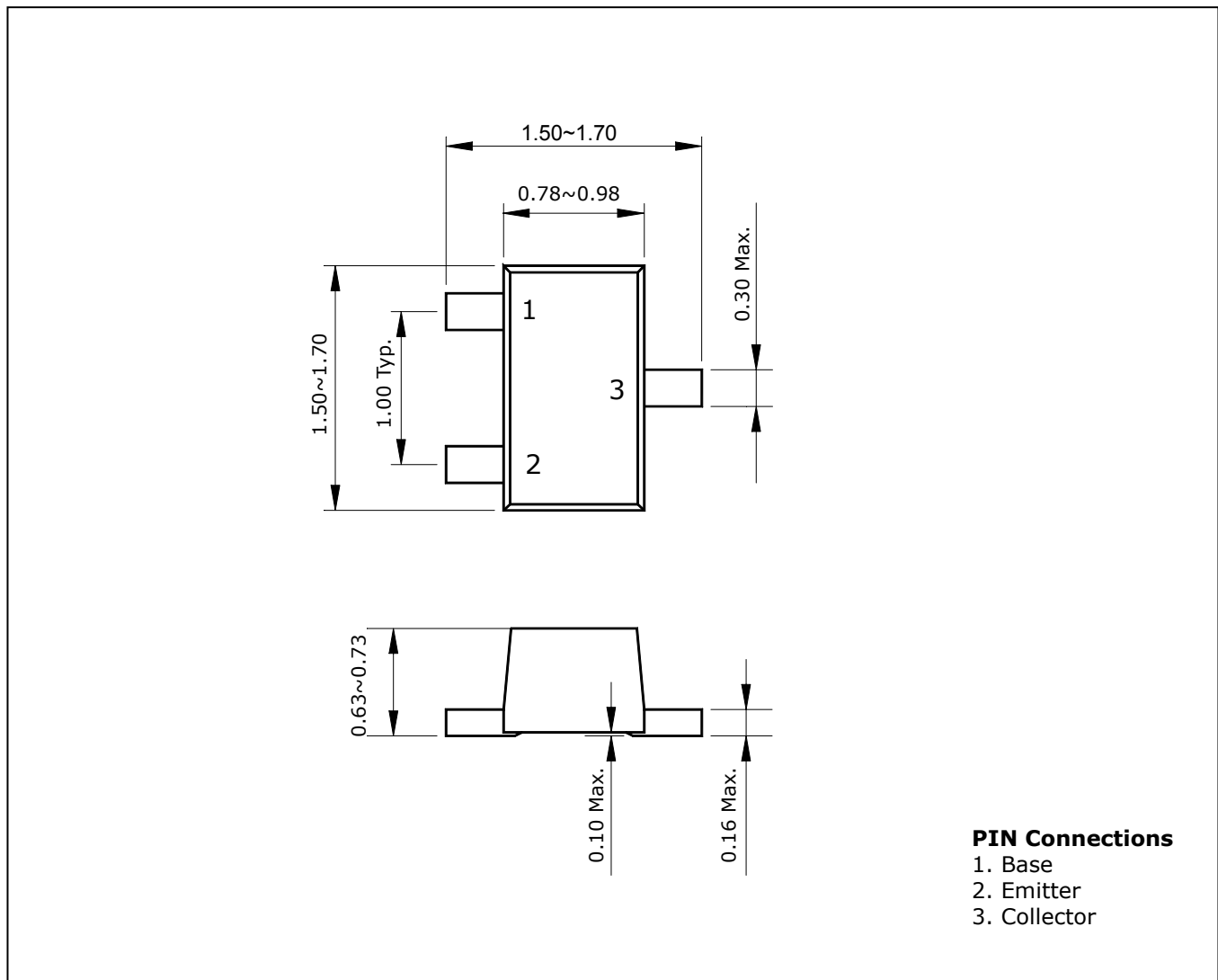
- Very low saturation voltage:  $V_{CE(sat)}=0.2V$  (Max.) @  $I_C=50mA$ ,  $I_B=5mA$
- High DC current gain:  $h_{FE}=1000\sim 2500$
- Small size SMD package

**Ordering Information**

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

**Outline Dimensions**

unit : mm



## Absolute Maximum Ratings

Ta=25°C

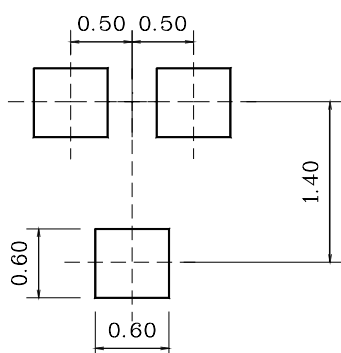
Characteristic	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	25	V
Collector-emitter voltage	$V_{CEO}$	20	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	150	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

## Electrical Characteristics

Ta=25°C

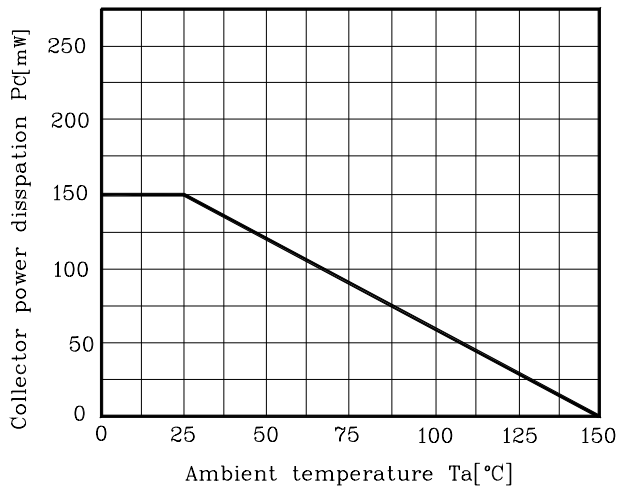
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C=1mA, I_B=0$	20	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=25V, I_E=0$	-	-	0.1	μA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	μA
DC current gain	$h_{FE}$	$V_{CE}=2V, I_C=4mA$	1000	-	2500	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\mu A, I_B=10\mu A$	-	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]

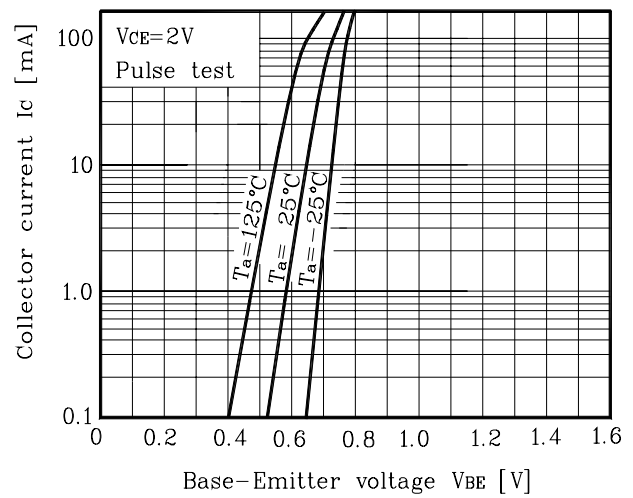


## Electrical Characteristic Curves

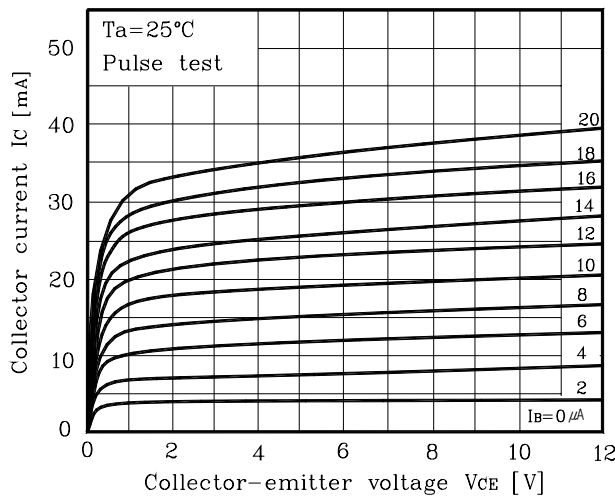
**Fig. 1  $P_C - T_a$**



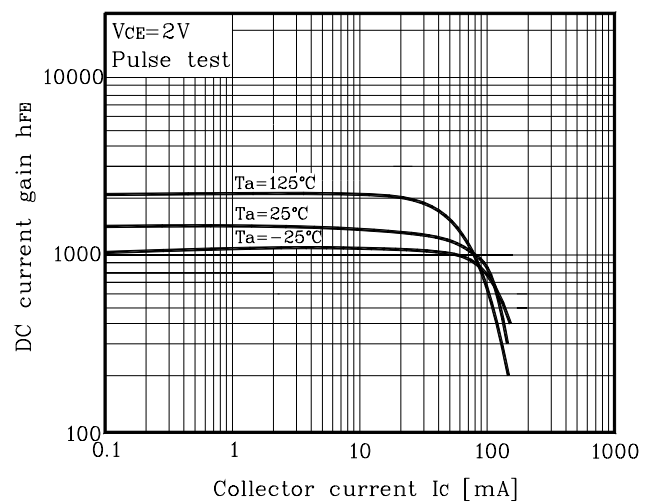
**Fig. 2  $I_C - V_{BE}$**



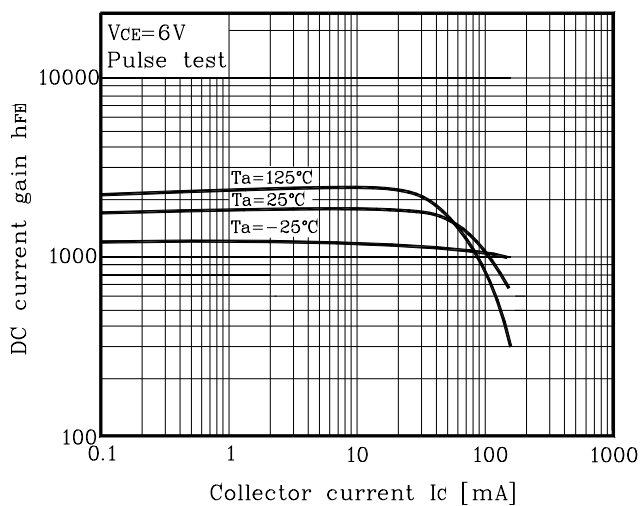
**Fig. 3  $I_C - V_{CE}$**



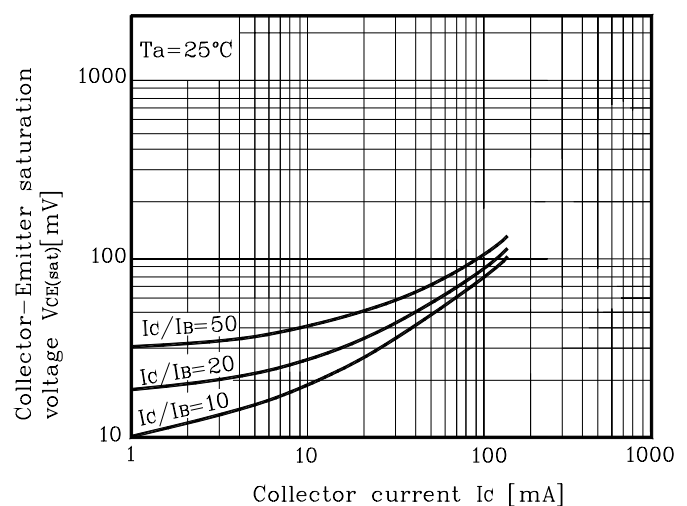
**Fig. 4  $h_{FE} - I_C$**



**Fig. 5  $h_{FE} - I_C$**



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



Electrical Characteristic Curves

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

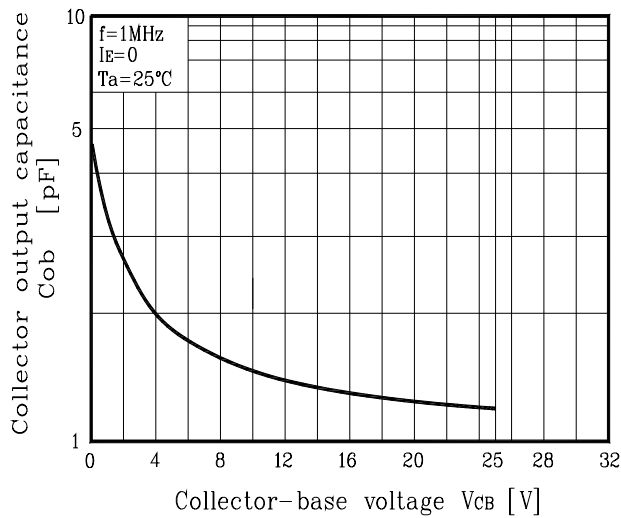
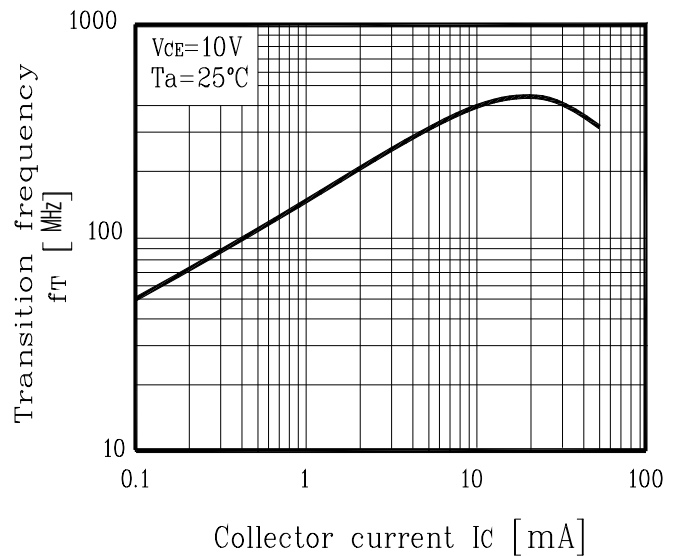


Fig. 8  $f_T - I_C$



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