

Application

- Micom Direct drive and switching Application

Features

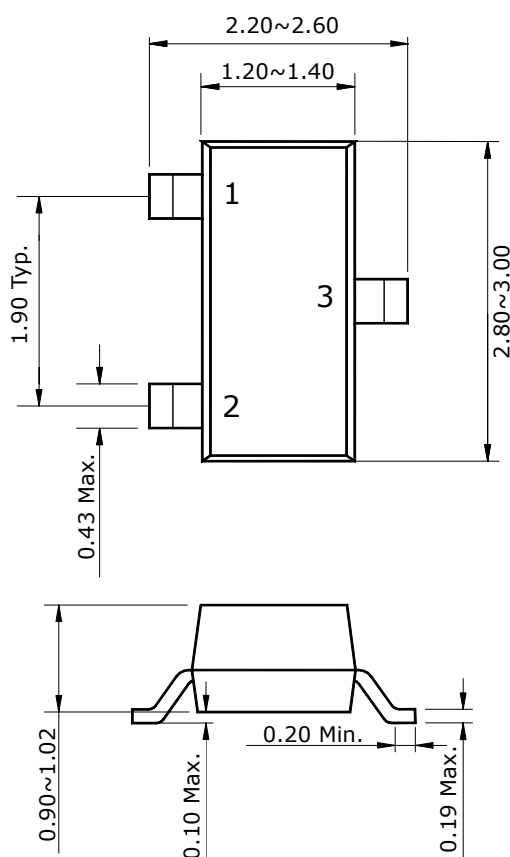
- Very low saturation voltage: $V_{CE(sat)}=0.2V$ (Max.) @ $I_C=50mA$, $I_B=5mA$
- High DC current gain: $h_{FE}=1000\sim2500$

Ordering Information

Type NO.	Marking	Package Code
STD6528S	ZA	SOT-23

Outline Dimensions

unit : mm



PIN Connections

1. Base
2. Emitter
3. Collector

Absolute Maximum Ratings

Ta=25°C

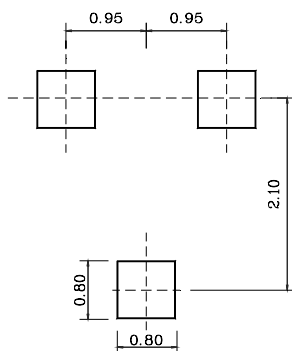
Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	25	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	150	mA
Collector power dissipation	P_C	200	mW
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55~150	°C

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 $P_C - T_a$

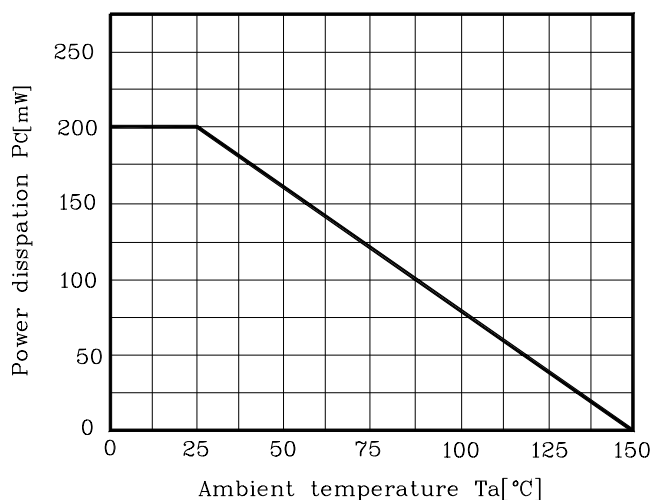


Fig. 2 $I_C - V_{BE}$

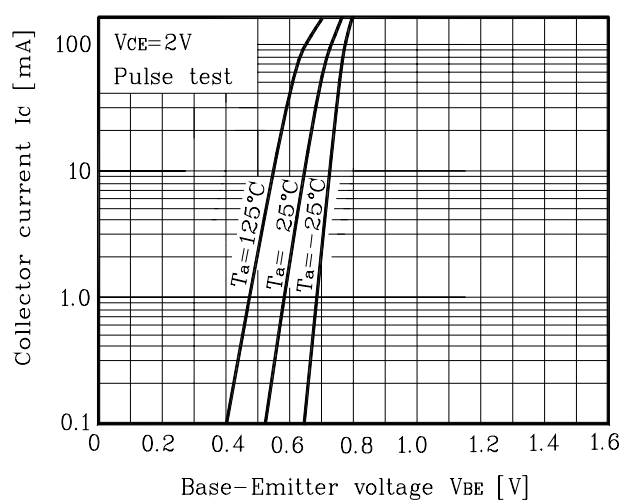


Fig. 3 $I_C - V_{CE}$

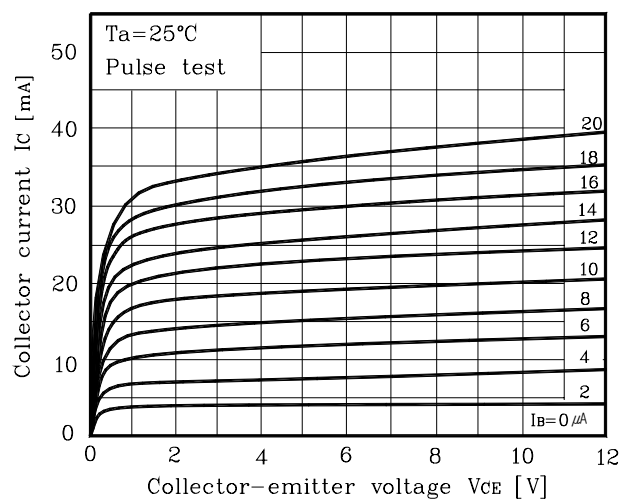


Fig. 4 $h_{FE} - I_C$

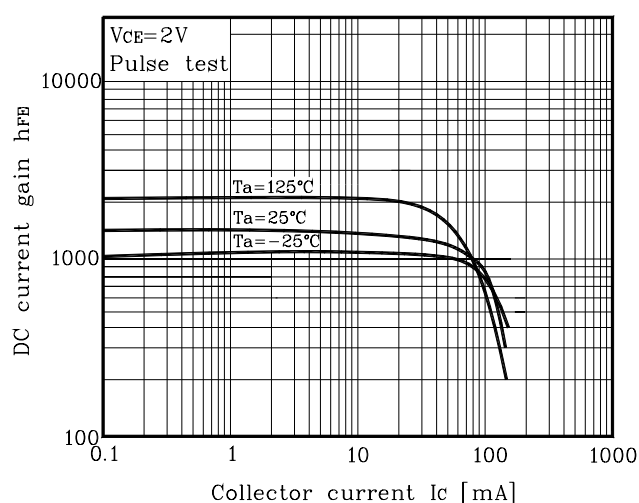


Fig. 5 $h_{FE} - I_C$

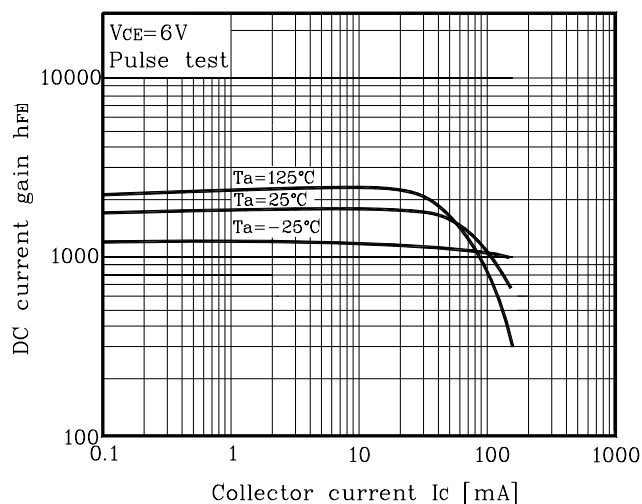
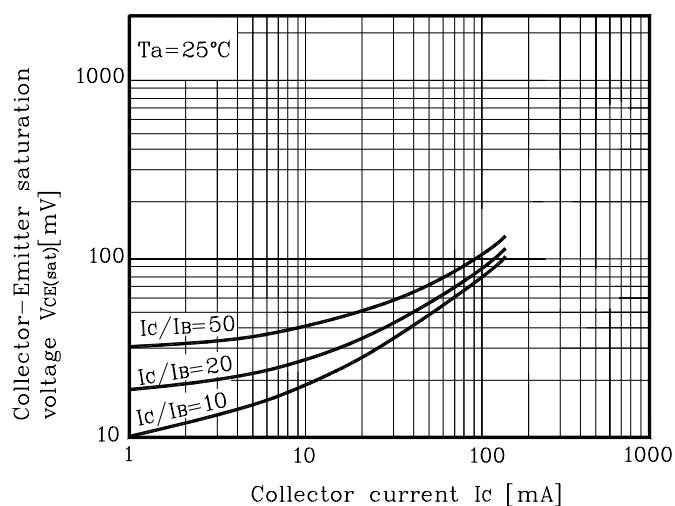


Fig. 6 $V_{CE(sat)} - I_C$



Electrical Characteristic Curves

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

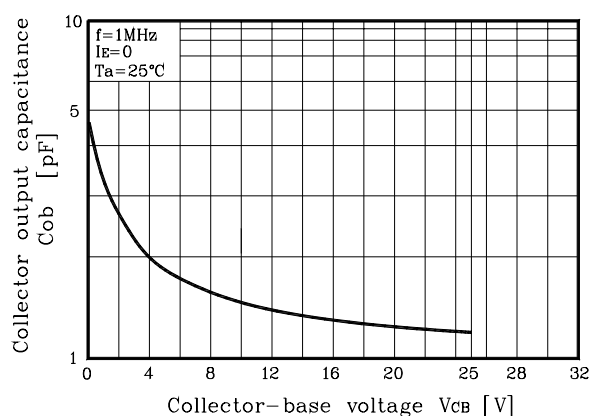
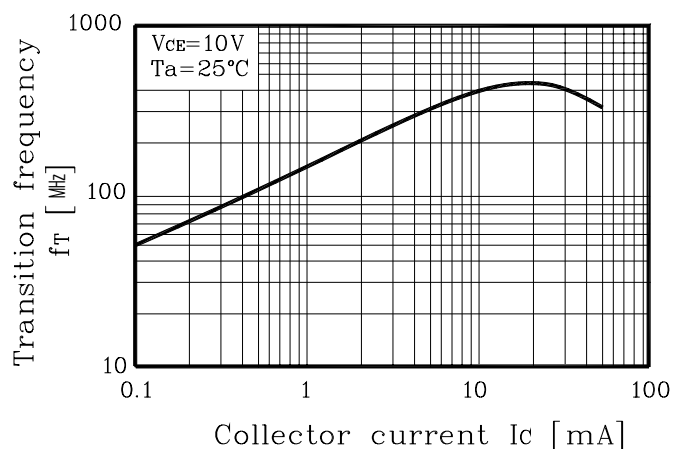


Fig. 8 $f_T - I_C$



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