

**Features**

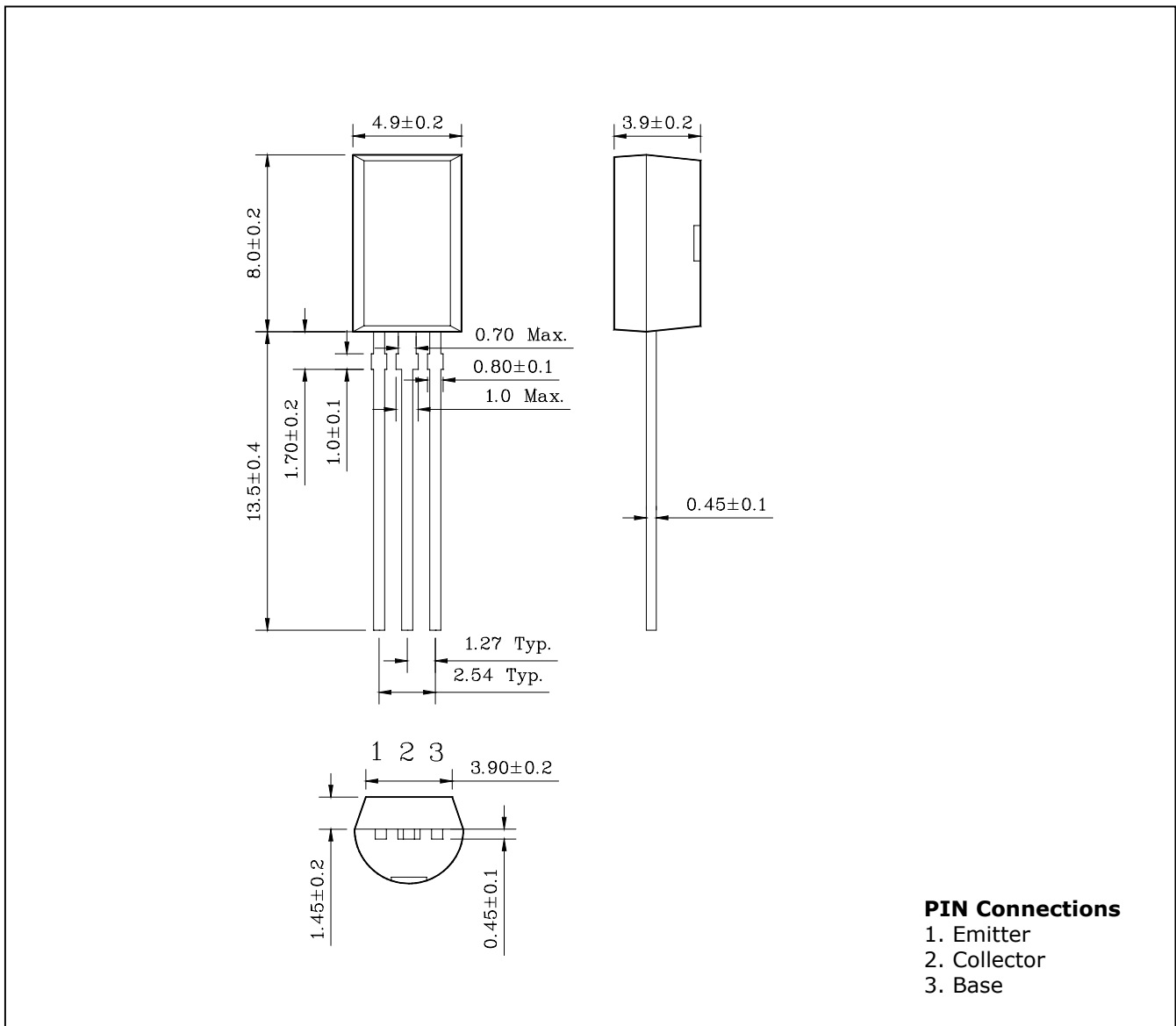
- Low saturation switching application
- Voltage regulator application
- Low saturation :  $V_{CE(SAT)}=0.4V$  Max.
- High Voltage :  $V_{CEO}=60V$  Min.

**Ordering Information**

Type NO.	Marking	Package Code
STC401L	STC401L	TO-92L

**Outline Dimensions**

unit : mm



**Absolute maximum ratings**

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	80	V
Collector-Emitter voltage	$V_{CEO}$	60	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	1	A
Collector dissipation	$P_C$	1000	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~150	°C

**Electrical Characteristics**

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C=1mA, I_B=0$	60	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60V, I_E=0$	-	-	0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$
DC current gain	$h_{FE}^*$	$V_{CE}=2V, I_C=100mA$	200	-	400	-
		$V_{CE}=2V, I_C=1A$	80	-	-	
Base-Emitter on voltage	$V_{BE(ON)}$	$V_{CE}=2V, I_C=500mA$	-	-	1.2	V
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$	-	-	0.4	V
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	10	-	pF
Transition frequency	$f_T$	$V_{CB}=10V, I_C=50mA$	-	160	-	MHz

\*  $h_{FE}$  rank : 200~400 Only

Electrical Characteristic Curves

Fig. 1  $P_C - T_a$

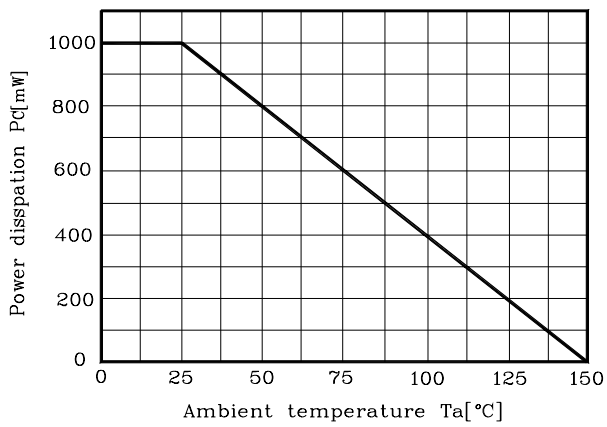


Fig. 2  $V_{CE} - I_C$

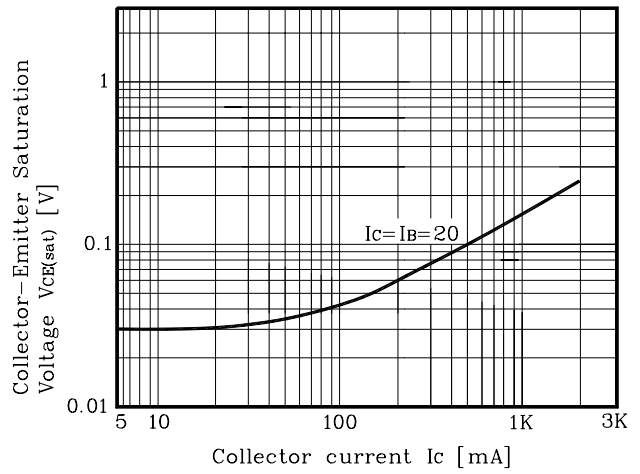


Fig. 3  $h_{FE} - I_C$

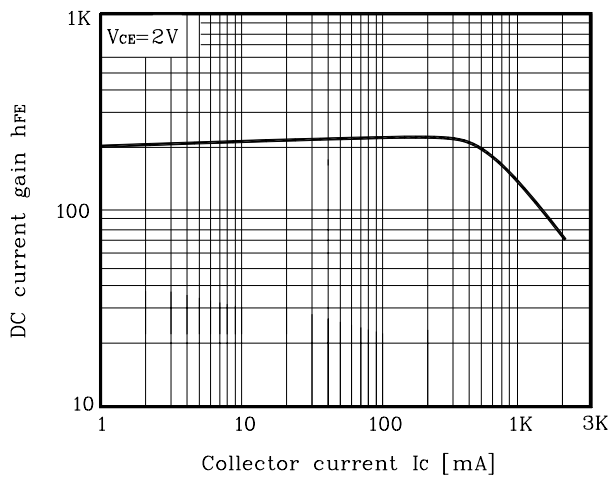


Fig. 4  $C_{ob} - V_{CB}$

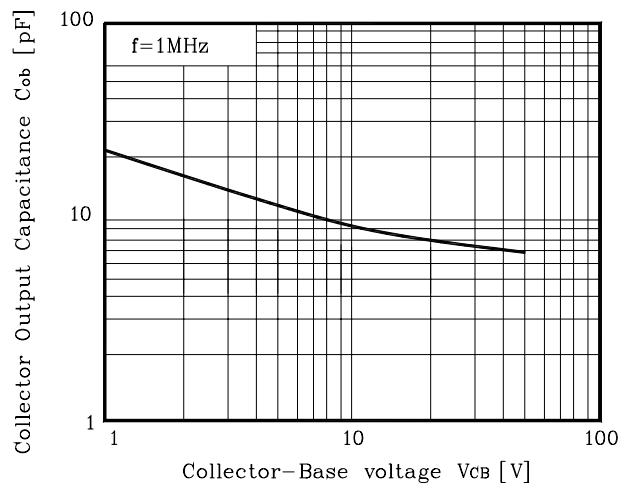


Fig. 5  $I_C - V_{CE}$

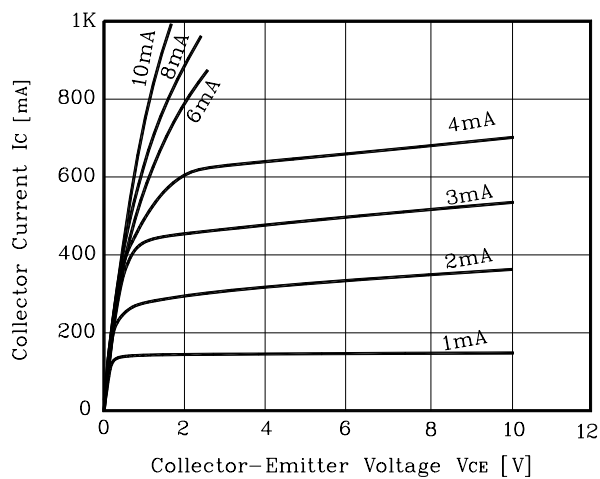
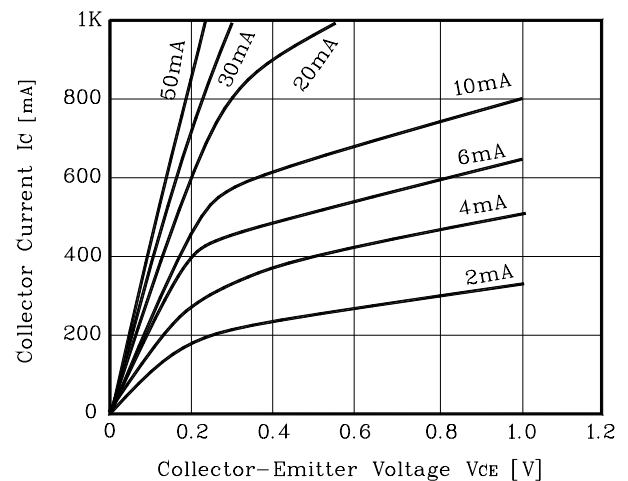


Fig. 6  $I_C - V_{CE}$



Electrical Characteristic Curves

Fig. 7  $f_T - I_C$

