AUK Semiconductor

STC352

NPN Silicon Transistor

Descriptions

- High current application
- Audio power amplifier

Features

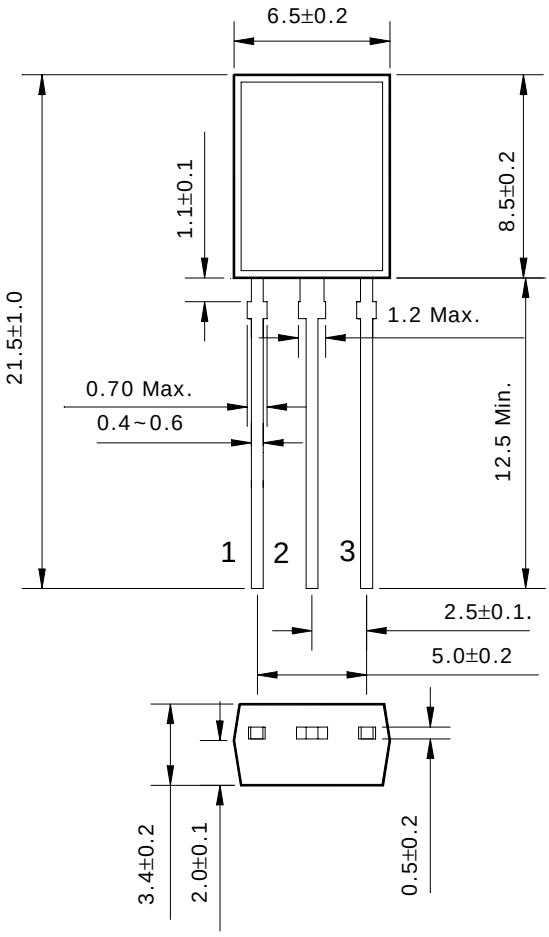
- High current : I_C = 2A
- Complementary pair with STA353

Ordering Information

Type NO.	Marking	Package Code
STC352	STC352	MPT

Outline Dimensions

unit : mm



PIN Connections
1. Emitter
2. Collector
3. Base

Absolute maximum ratings (Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	40	V
Collector-Emitter voltage	V_{CEO}	30	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	2	A
Emitter Current	I_E	-2	A
Collector dissipation	P_C	1.2	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=100μA, I_E=0	40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=10mA, I_B=0	30	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=1mA, I_C=0	5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=40V, 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=500mA	100	-	320	-
Base-Emitter on voltage	$V_{BE(ON)}$	V_{CE}=2V, I_C=500mA	-	-	1	V
Collector-Emitter saturation voltage	$V_{CE(sat)1}$	I_C=2A, I_B=0.2A	-	-	0.8	V
	$V_{CE(sat)2}$	I_C=1.5A, I_B=0.03A	-	-	2	
Transition frequency	f_T	V_{CE}=5V, I_C=500mA	-	120	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	13	-	pF

* : h_{FE} rank / O : 100~200, Y : 160~320

Electrical Characteristic Curves

Fig. 1 h_{FE} - I_C

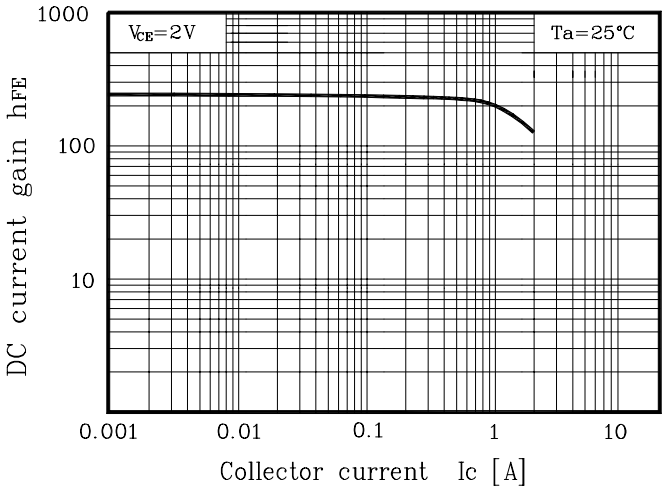


Fig. 2 $V_{CE(sat)}$ - I_C

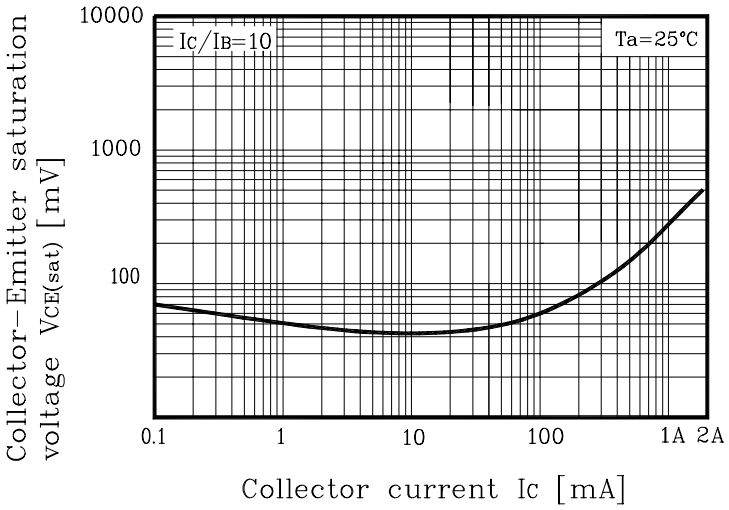


Fig. 3 f_T - I_C

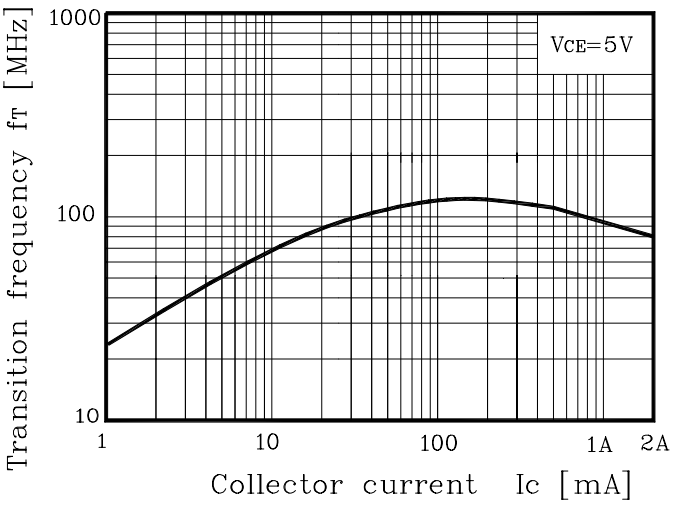


Fig. 4 C_{Ob} - V_R