

Description

- General small signal amplifier

Features

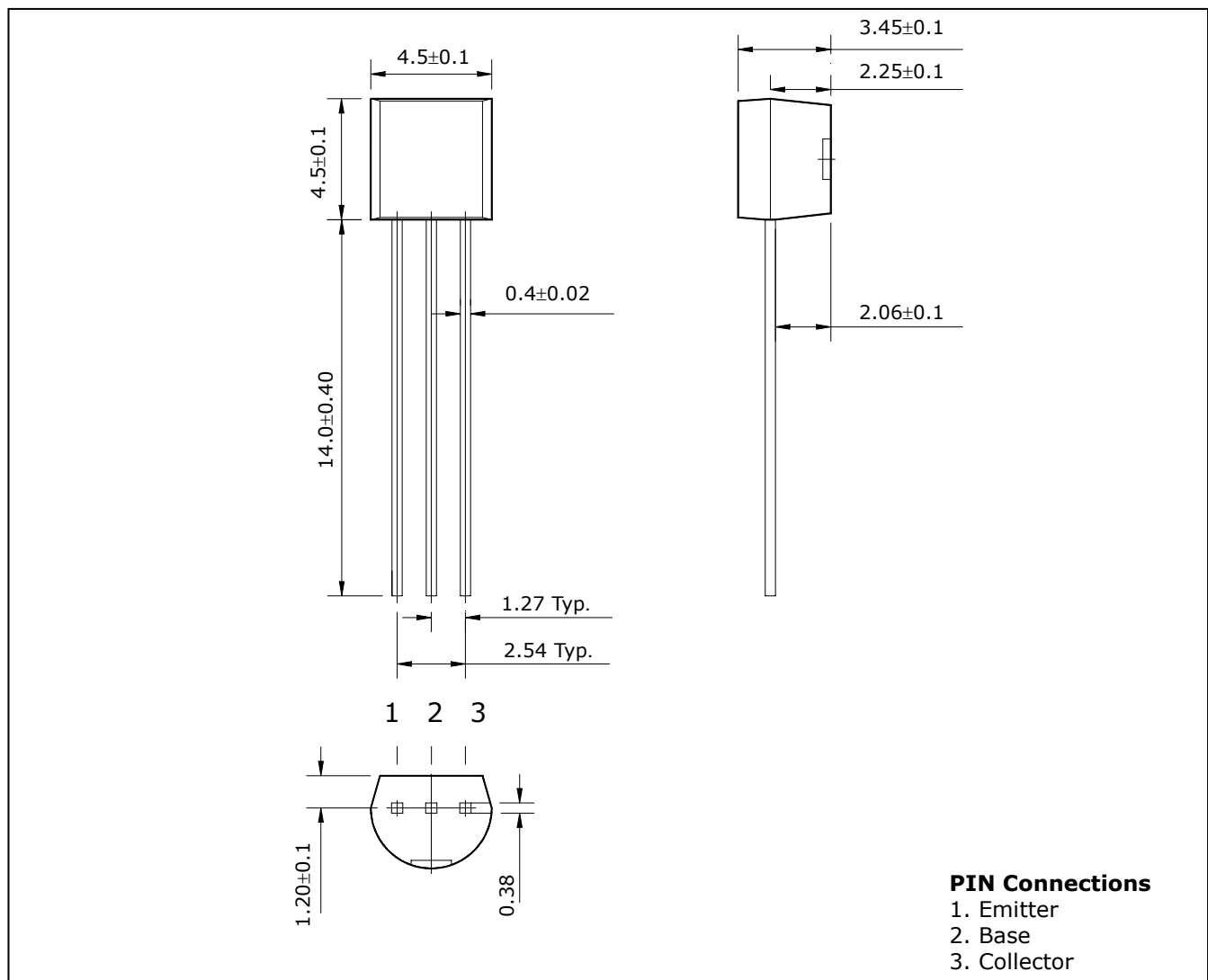
- Low collector saturation voltage : $V_{CE(sat)} = -0.3V$ [$I_C = -20mA$, $I_B = -2mA$]
- Low output capacitance : $C_{ob} = 2.8pF$ (Typ.)
- Complementary pair with STS5343

Ordering Information

Type NO.	Marking	Package Code
STS733	STS733	TO-92

Outline Dimensions

unit : mm



Absolute maximum ratings

(Ta = 25 °C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-60	V
Collector-Emitter voltage	V_{CEO}	-50	V
Emitter-base	V_{EBO}	-5	V
Collector current	I_C	-150	mA
Collector dissipation	P_C	625	mW
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}	$I_C = -100\mu A, I_B = 0$	-60	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-50	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_C = -10\mu A, I_B = 0$	-5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -25V, I_E = 0$	-	-	-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C = 0$	-	-	-100	nA
DC current gain	h_{FE1}	$V_{CE} = -6V, I_C = -1mA$	120	-	240	-
DC current gain	h_{FE2}	$V_{CE} = -2.5V, I_C = -100mA$	60	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20mA, I_B = -2mA$	-	-0.18	-0.3	V
Base-Emitter on Voltage	$V_{BE(on)}$	$V_{CE} = -6V, I_C = -1mA$	-0.5	-0.62	-0.8	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$	50	180	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	2.8	-	pF
Noise figure	NF	$V_{CE} = -6V, I_C = -0.3mA, f = 1KHz, R_S = 10K\Omega$	-	6	20	dB

Electrical Characteristic Curves

Fig. 1 P_C-T_a

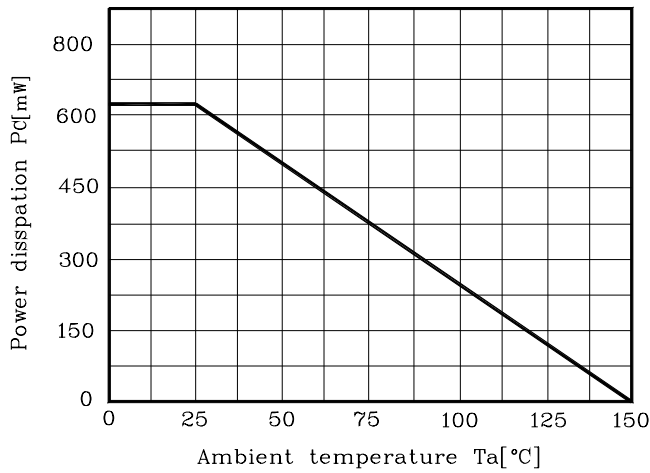


Fig. 2 I_C-V_{BE}

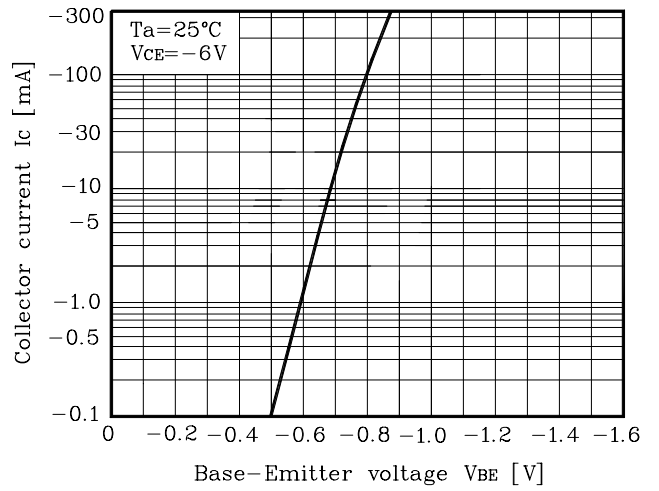


Fig. 3 I_C-V_{CE}

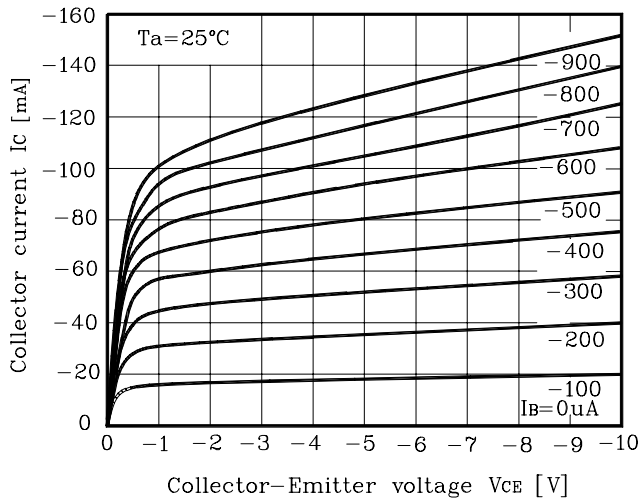


Fig. 4 $h_{FE}-I_C$

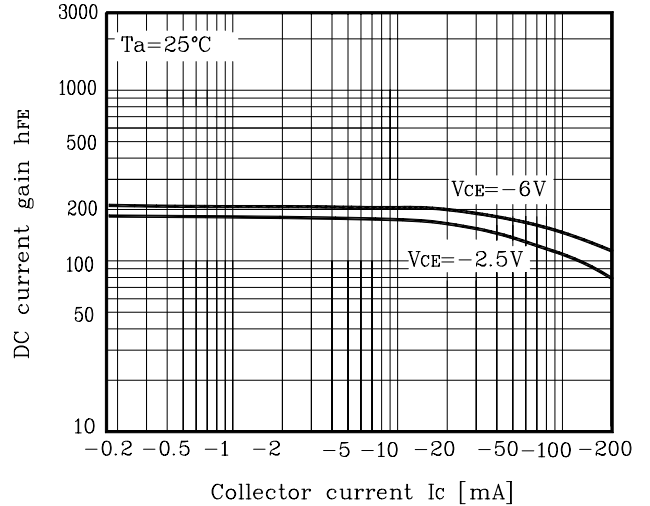
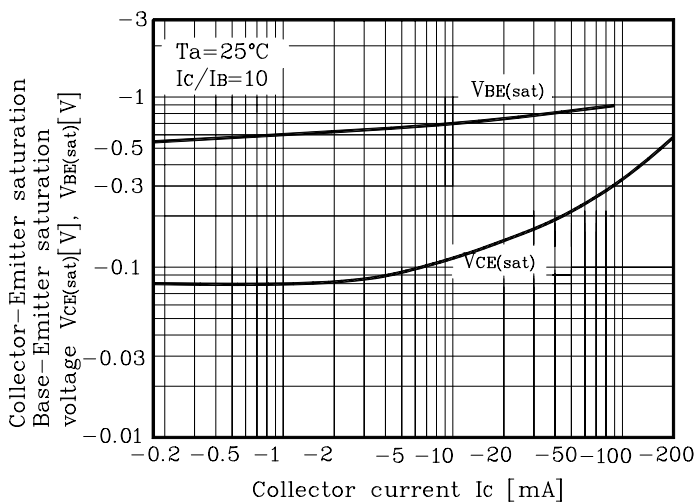


Fig. 5 $V_{CE(sat)}/V_{BE(sat)}-I_C$



These AUK products are intended for usage in general electronic equipments(Office and communication equipment, measuring equipment, domestic electrification, etc.).

Please make sure that you consult with us before you use these AUK products in equipments which require high quality and/or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, traffic signal, combustion central, all types of safety device, etc.).

AUK cannot accept liability to any damage which may occur in case these AUK products were used in the mentioned equipments without prior consultation with AUK.