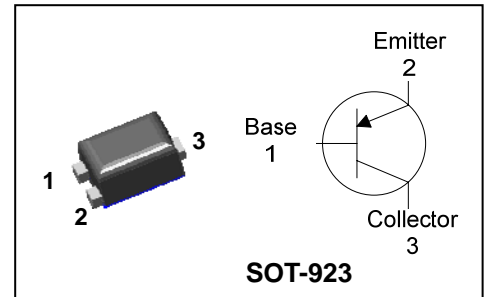


Description

- General small signal amplifier

Features

- Low collector saturation voltage : $V_{CE(sat)} = -0.15V(\text{Max.})$
- Extremely small size package: 0.8x0.6x0.4 mm Typ.
- Complementary pair with NT331

PIN Connection

Ordering Information

Type NO.	Marking	Package Code
NT332	P□	SOT-923

 □: h_{FE} rank

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-20	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector power dissipation	P_C	50	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_{CB0}	$V_{CB} = -20V, I_E = 0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-0.1	μA
DC current gain	h_{FE}^*	$V_{CE} = -6V, I_C = -2mA$	120	-	400	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$	-	-	-0.15	V
Base-emitter voltage	V_{BE}	$V_{CE} = -6V, I_C = -2mA$	-	-0.7	-0.9	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -10mA$	-	200	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	4	-	pF

 *: h_{FE} rank / Y : 120~240, G : 200~400

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

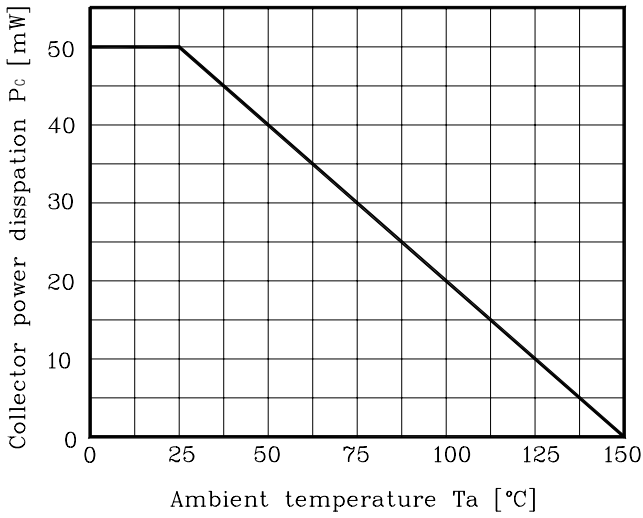


Fig. 2 $I_C - V_{BE}$

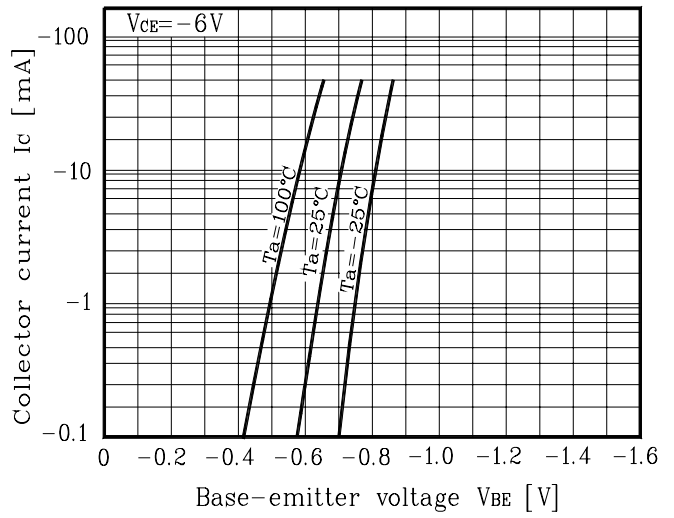


Fig. 3 $I_C - V_{CE}$

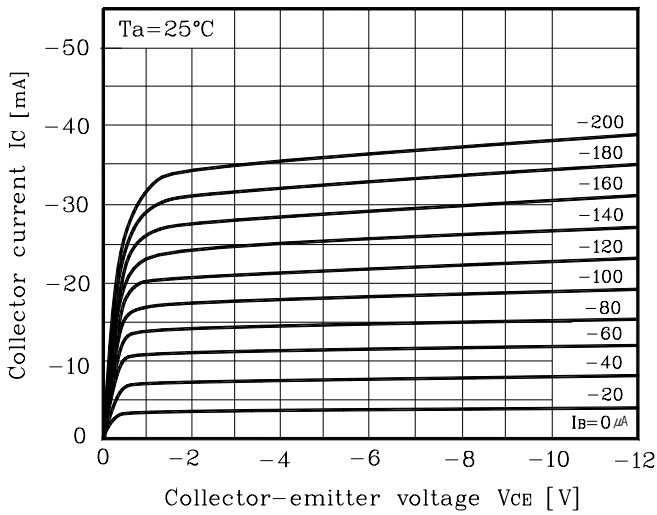


Fig. 4 $h_{FE} - I_C$

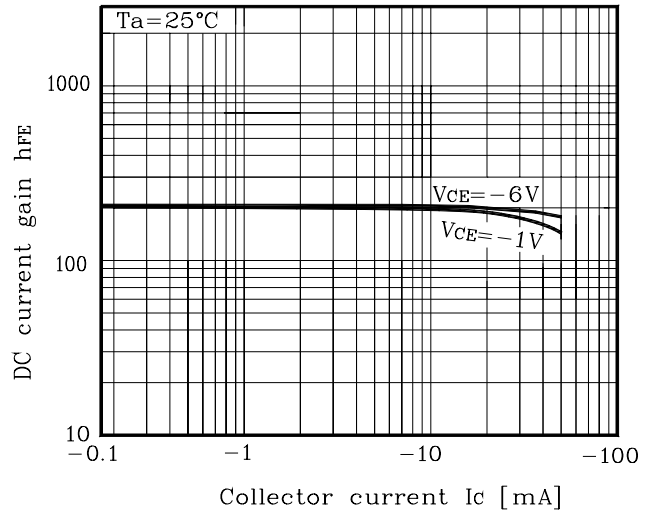


Fig. 5 $V_{CE(sat)} - I_C$

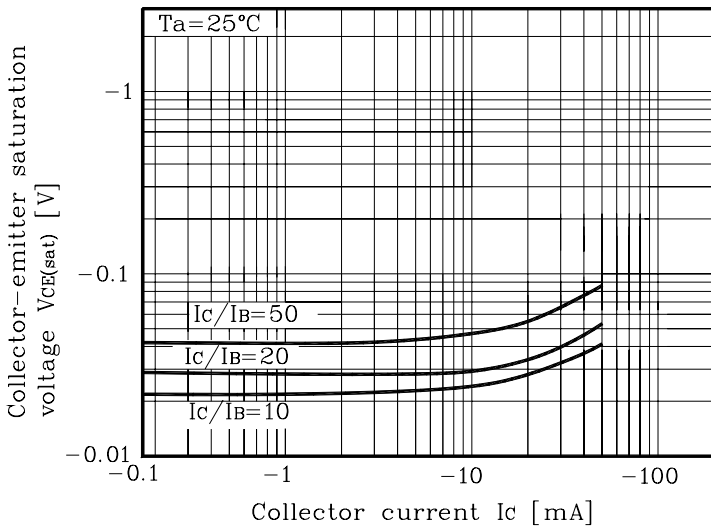
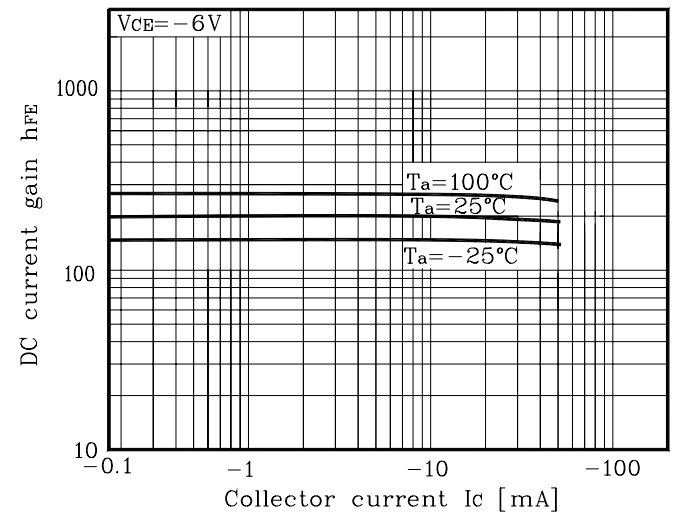
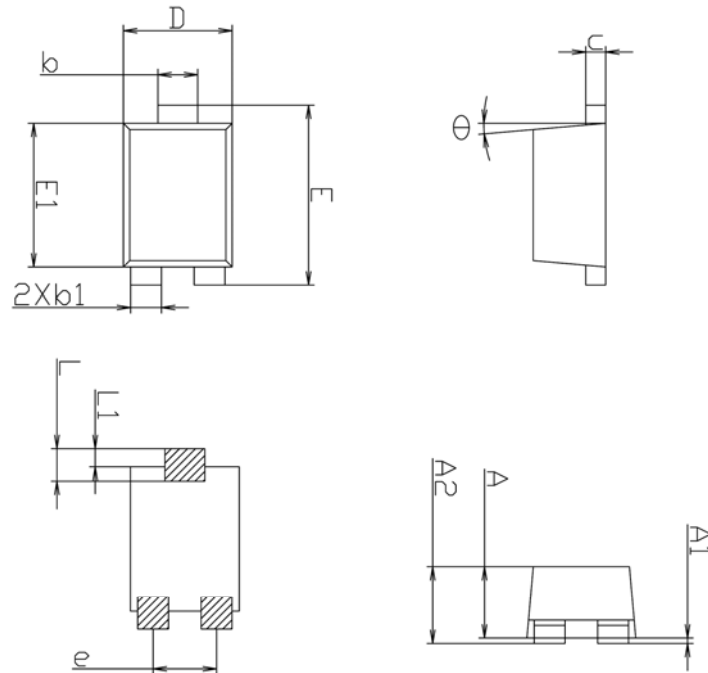


Fig. 6 $h_{FE} - I_C$

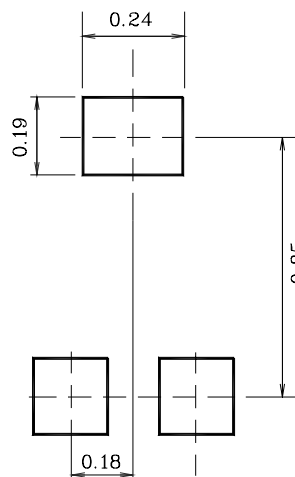


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.39	0.40	0.41	
A1	-	-	0.05	
A2	-	-	0.43	
b	0.17	0.22	0.27	
b1	0.12	0.17	0.22	
c	0.08	0.11	0.14	
D	0.55	0.60	0.65	
E	0.90	1.00	1.10	
E1	0.75	0.80	0.85	
L	0.10	0.18	0.26	
L1	0.05	0.10	0.15	
e	0.35 BSC			
⊖	5° REF			

※Recommend PCB solder land [Unit: mm]



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