

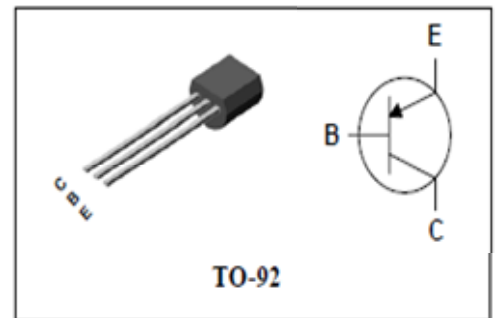
Descriptions

- General purpose application
- Switching application

Features

- High voltage : $V_{CEO} = -30V$
- Complementary pair with KBC548

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
KBC558	KBC558□ •	TO-92

□ HFE Rank • Dalian

Absolute Maximum Ratings

$T_a = 25^\circ C$

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-30	V
Collector-Emitter voltage	V_{CEO}	-30	V
Emitter-Base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
Collector dissipation	P_C	625	mW
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55~150	$^\circ C$

Electrical Characteristics

$T_a = 25^\circ C$

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-30	-	-	V
Base-Emitter turn on voltage	$V_{BE(ON)}$	$V_{CE} = -5V, I_C = -2mA$	-	-	-700	mV
Base-Emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -5mA$	-	-900	-	mV
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -5mA$	-	-	-650	mV
Collector cut-off current	I_{CBO}	$V_{CB} = -35V, I_E = 0$	-	-	-15	nA
DC current gain	h_{FE}^*	$V_{CE} = -5V, I_C = -2mA$	110	-	800	-
Transition frequency	f_T	$V_{CB} = -5V, I_C = -10mA$	-	150	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	-	4.5	pF
Noise Figure	NF	$V_{CE} = -5V, I_C = -200\mu A, f = 1KHz, R_g = 2K\Omega, \Delta f = 200Hz$	-	-	10	dB

* : h_{FE} rank / A : 110 ~ 220, B : 200 ~ 450, C : 420 ~ 800

Electrical Characteristic Curves

Fig. 1 P_C-I_A

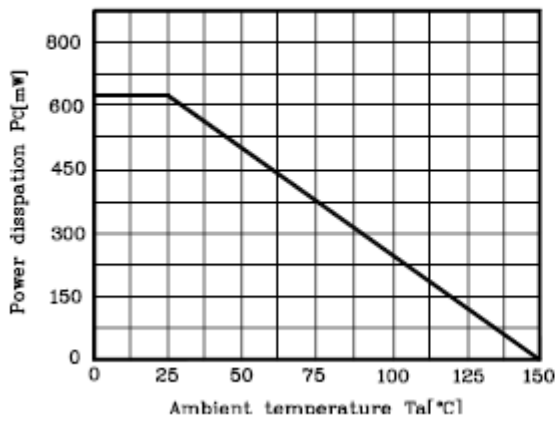


Fig. 2 I_C-V_{BE}

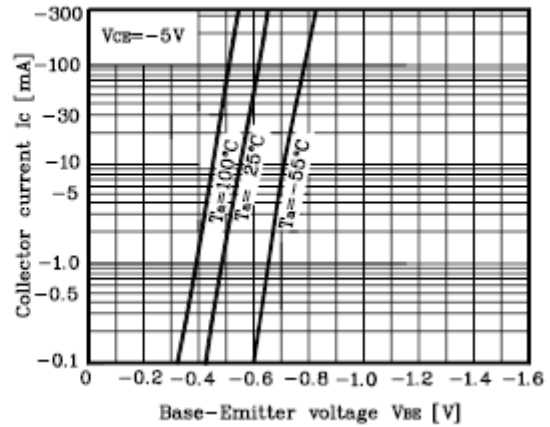


Fig. 3 I_C-V_{CE}

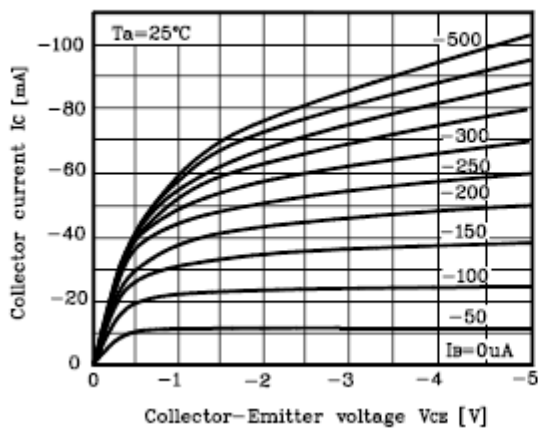


Fig. 4 $h_{FE}-I_C$

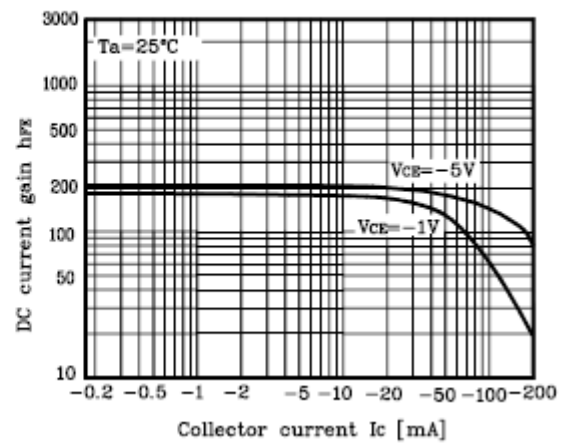
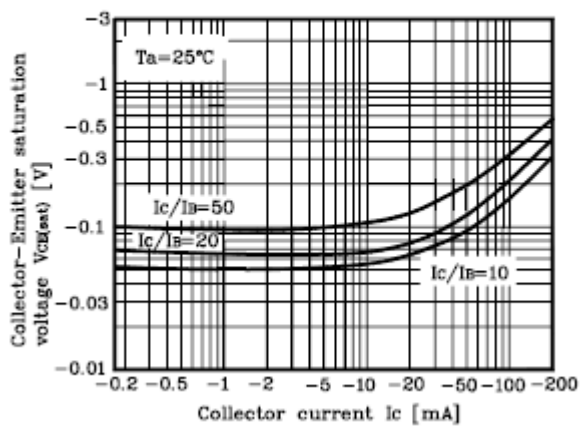
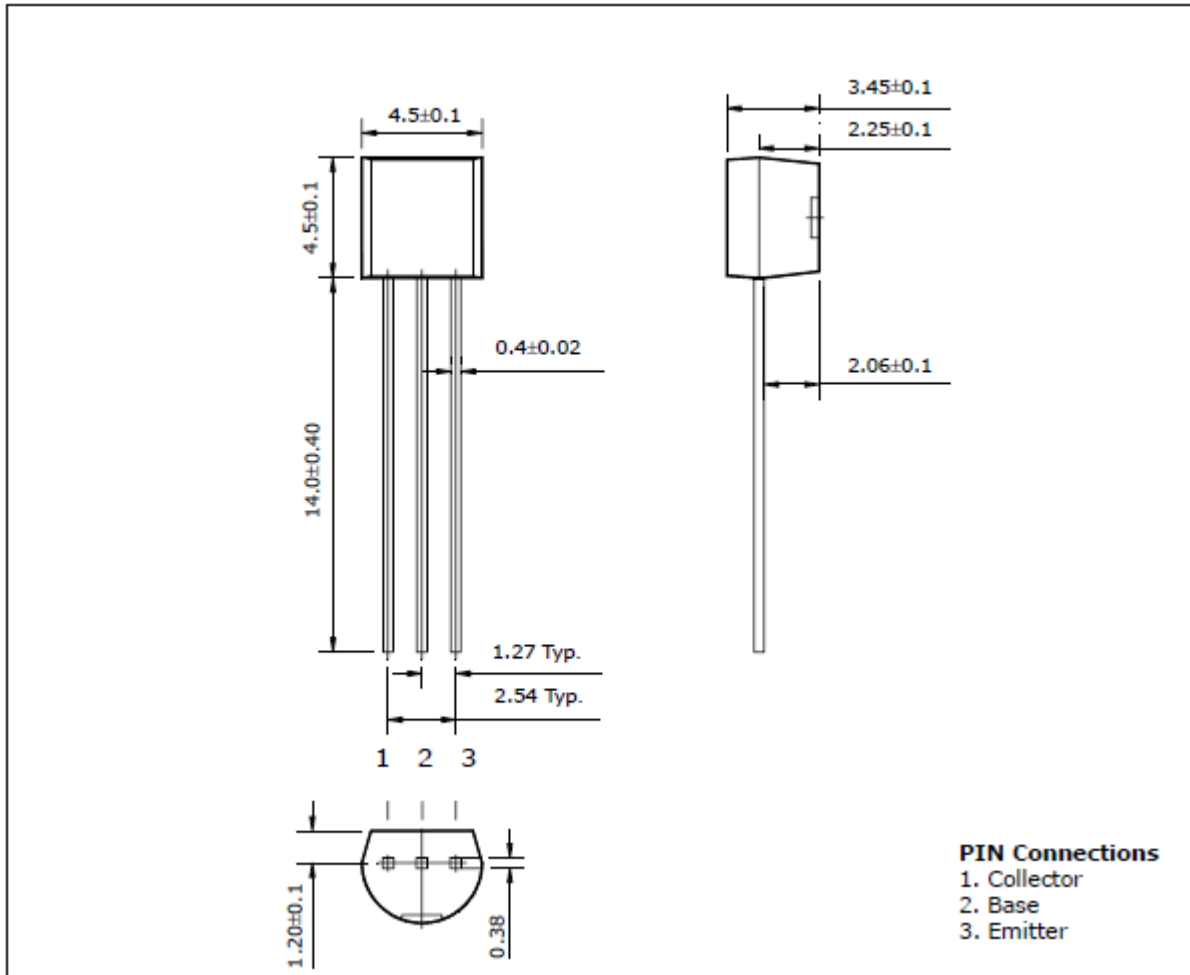


Fig. 5 $V_{CE(sat)}-I_C$



Outline Dimensions

unit : mm



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