

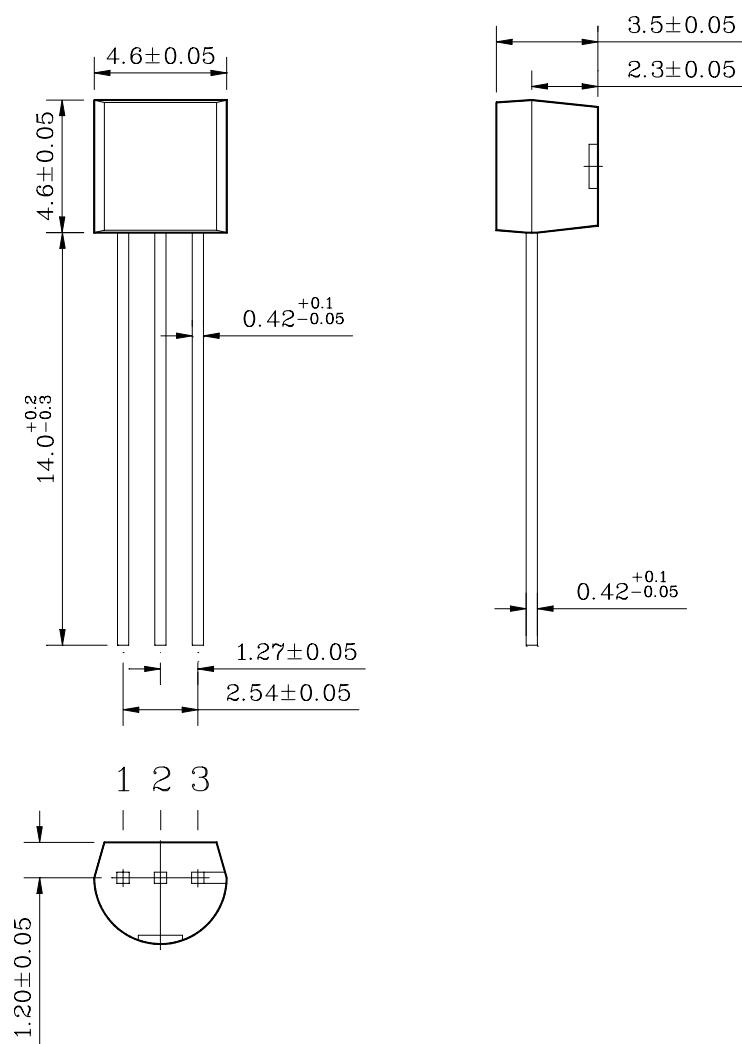
Features

- Extremely low collector-to-emitter saturation voltage ($V_{CE(SAT)} = -0.25V$ Typ. @ $I_C/I_B = -400mA/-20mA$)
- Suitable for low voltage large current drivers
- Complementary pair with DN100
- Switching Application

Ordering Information

Type NO.	Marking	Package Code
DP100	DP100	TO-92

Outline Dimensions

unit : mm


PIN Connections

- Emitter
- Collector
- Base

Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V _{CBO}	-15	V
Collector-Emitter voltage	V _{CEO}	-12	V
Emitter-Base voltage	V _{EBO}	-5	V
Collector current	I _C	-1	A
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 =-50μA, I _E =0	-15	-	-	V
Collector-Emitter breakdown voltage	BV _{CEO}	I _C =-1mA, I _B =0	-12	-	-	V
Emitter-Base breakdown voltage	BV _{EBO}	I _E =-50μA, I _C =0	-5	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} =-12V, 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 _{FE1}	V _{CE} =-1V, I _C =-100mA	200	-	450	-
	h _{FE2}	V _{CE} =-1V, I _C =-1A	70	-	-	-
Collector-Emitter saturation voltage	V _{CE(sat)}	I _C =-400mA, I _B =-20mA	-	-	-0.3	V
Base-Emitter saturation voltage	V _{BE(sat)}	I _C =-400mA, I _B =-20mA	-	-	-1.2	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-50mA	-	330	-	MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz	-	9	-	pF

Electrical Characteristic Curves

Fig. 1 $P_C \cdot T_a$

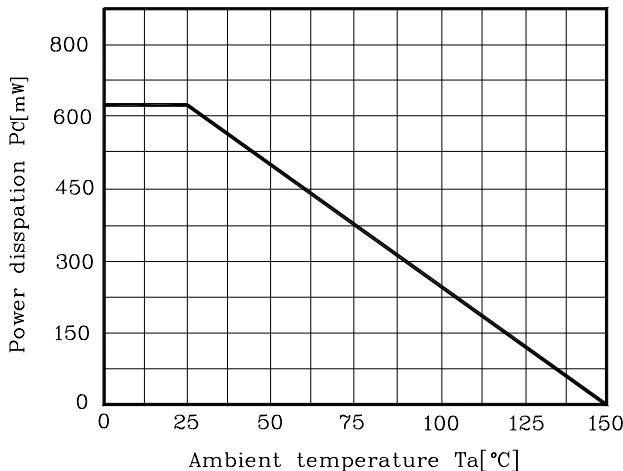


Fig. 2 $I_C \cdot V_{BE}$

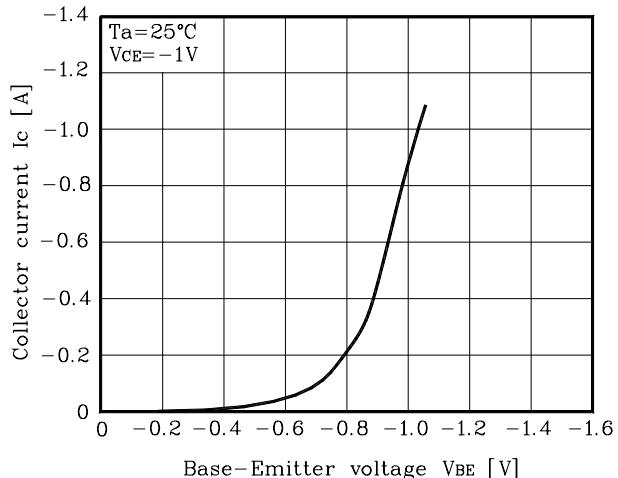


Fig. 3 $h_{FE} \cdot I_C$

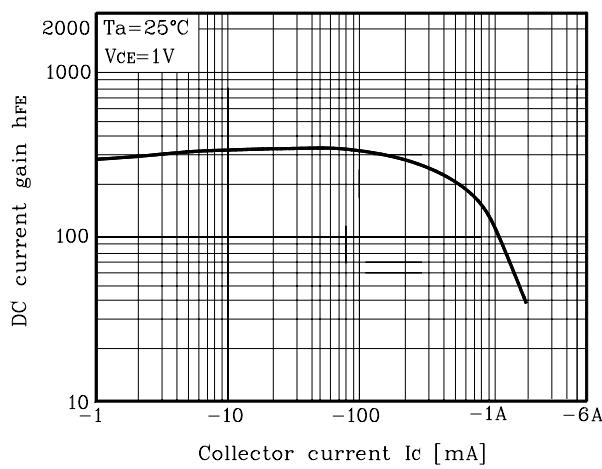
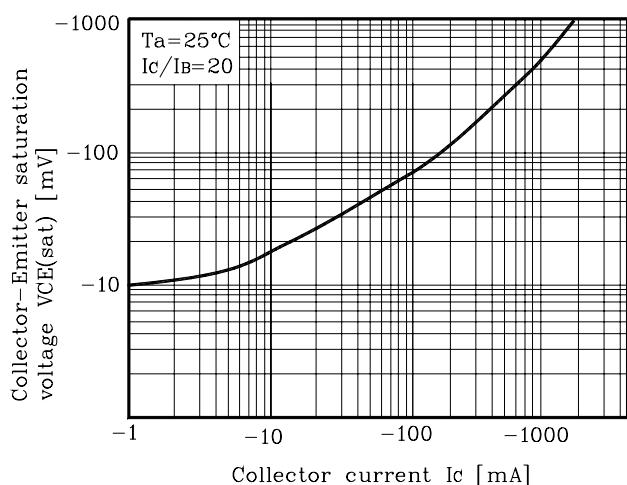


Fig. 4 $V_{CE(sat)} \cdot I_C$



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