AUK Semiconductor

DP500P

PNP Silicon Transistor

Description

- Suitable for low voltage large current drivers
- Excellent h_{FE} Linearity
- Complementary pair with DN500P
- Switching Application

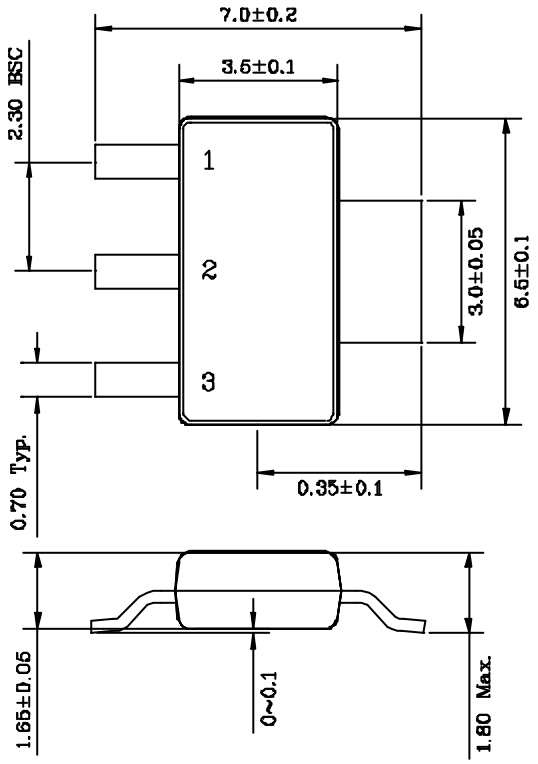
Ordering Information

Type NO.	Marking	Package Code
DP500P	P5□	SOT-223

□ : monthly code

Outline Dimensions

unit : mm



PIN Connections
1. Base
2. Collector
3. Emitter

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	1.1	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=-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}=-2V, I_C=-500mA	160	-	320	-
	h_{FE2}	V_{CE}=-2V, I_C=-3A	40	-	-	-
Collector-Emitter on voltage	$V_{CE(sat1)}$	I_C=-3A, I_B=-150mA	-	-	-0.5	V
Base-Emitter on voltage	$V_{BE(sat)}$	I_C=-3A, I_B=-150mA	-	-	-1.2	V
Transition frequency	f_T	V_{CB}=-5V, I_C=-500mA	-	150	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	-	50	pF

Electrical Characteristic Curves

Fig. 1 Pc - Ta

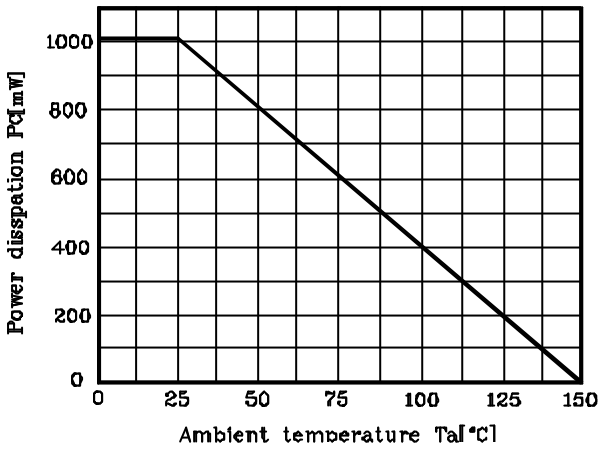


Fig. 2 Ic - V_{BE}

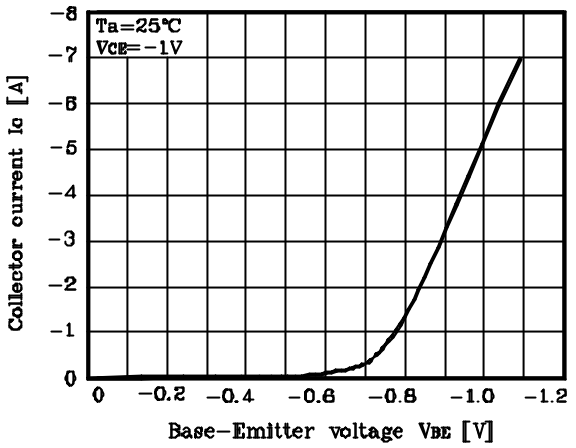


Fig. 3 h_{FE} - I_C

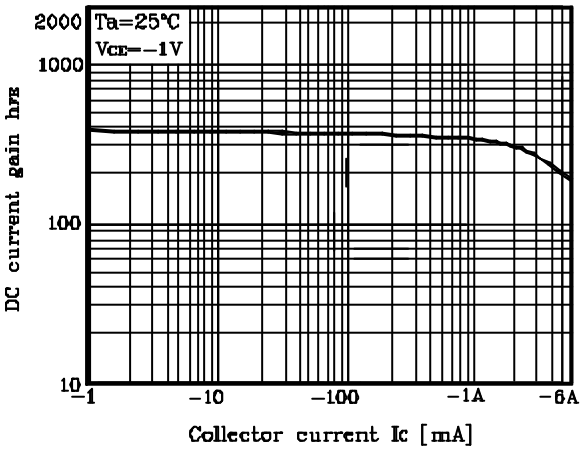


Fig. 4 $V_{CE(sat)}$ - I_C