KODENSHI AUK

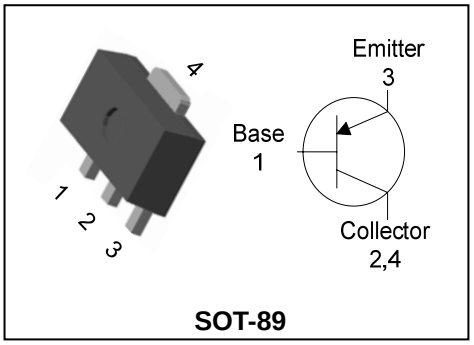
DP500F

PNP Silicon Transistor

Description

- Suitable for low voltage large current drivers
- Excellent h_{FE} Linearity
- Complementary pair with DN500
- Switching Application

PIN Connection



SOT-89

Ordering Information

Type NO.	Marking	Package Code
DP500F	P5 □YWW	SOT-89

P5: DEVICE CODE, □ : h_{FE} rank, YWW(Y : Year code, WW : Weekly code)

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	-5	A
Collector power dissipation	P_C	0.5	W
	P_C^*	1	
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~150	°C

* : When mounted on ceramic substrate(250 ㎟×0.8t)

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=-50 ㎂, I_E=0	-15	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=-1 ㎃, I_B=0	-12	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=-50 ㎂, I_C=0	-5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-12V, I_E=0	-	-	-1	㎂
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-1	㎂
DC current gain	h_{FE1}^*	V_{CE}=-1V, I_C=-100 ㎃	120	-	700	-
	h_{FE2}	V_{CE}=-1V, I_C=-3A	40	-	-	-
Collector-Emitter on voltage	$V_{CE(sat1)}$	I_C=-3A, I_B=-150 ㎃	-	-	-0.5	V
Base-Emitter on voltage	$V_{BE(sat)}$	I_C=-3A, I_B=-150 ㎃	-	-	-1.2	V
Transition frequency	f_T	V_{CB}=-5V, I_C=-500 ㎃	-	150	-	㎒
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1 ㎒	-	-	50	pF

* : h_{FE} rank / O : 120 ~ 240, Y : 200 ~ 400, G : 350 ~ 700

Electrical Characteristic Curves

Fig. 1 Pc - Ta

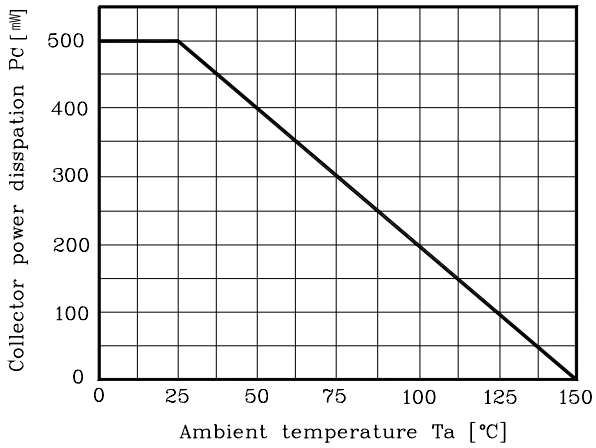


Fig. 2 Ic - V_{BE}

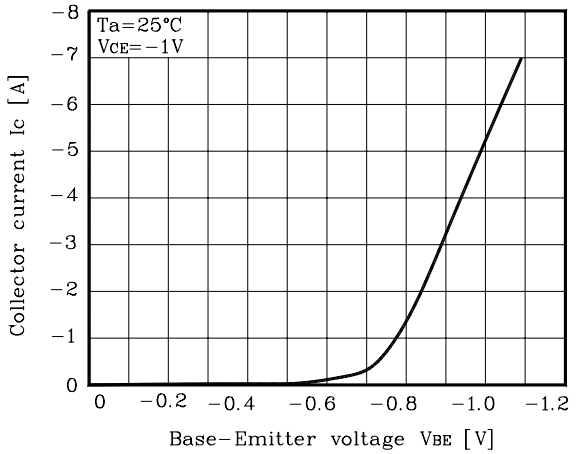


Fig. 3 h_{FE} - I_C

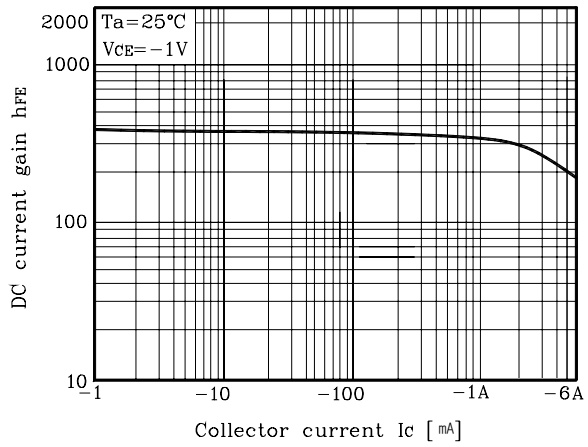
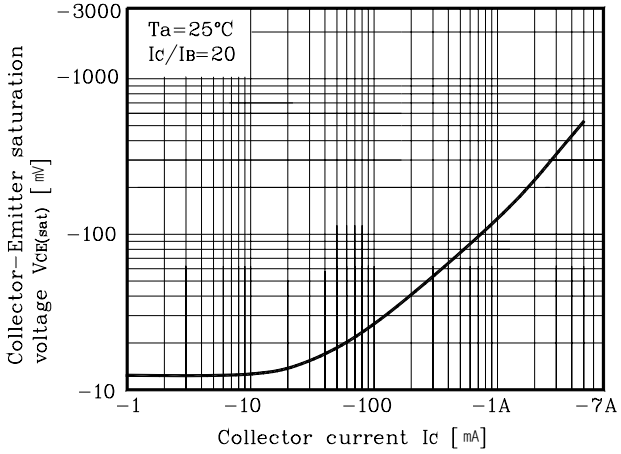
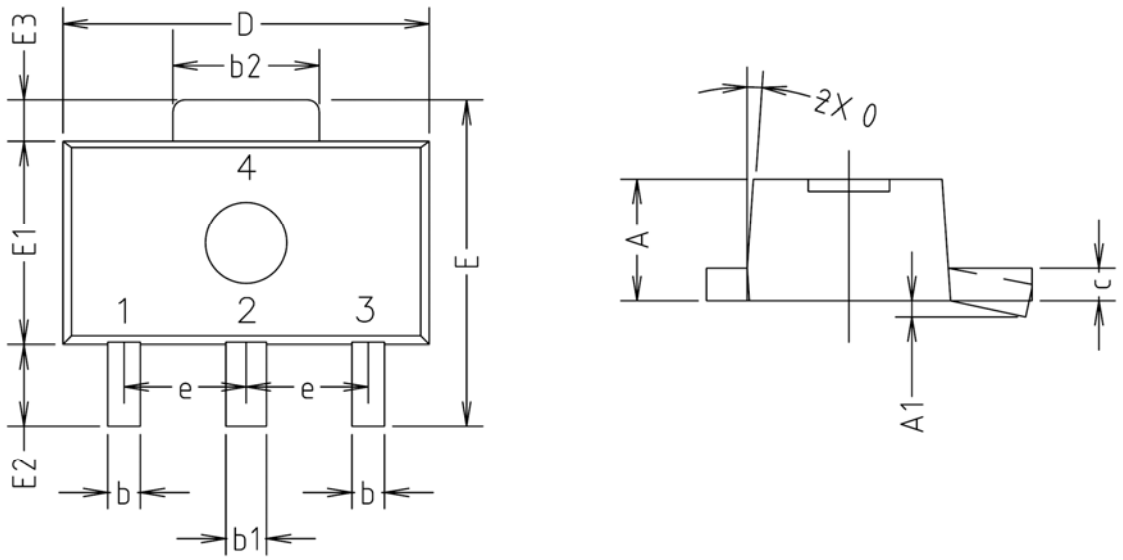


Fig. 4 $V_{CE(sat)}$ - I_C

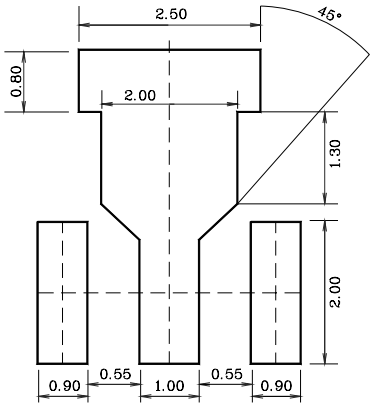


Outline Dimension(mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	1.40	1.50	1.60	
A1	0.00	–	0.10	
b	0.38	0.42	0.48	
b1	0.48	0.52	0.58	
b2	1.79	1.82	1.87	
c	0.40	0.42	0.46	
D	4.40	4.50	4.70	
E	3.70	4.00	4.30	
E1	2.40	2.50	2.70	
E2	0.80	1.00	1.20	
E3	0.40	0.50	0.60	
e	1.50 TYP.			
θ	4° TYP.			

※Recommend PCB solder land [Unit: mm]



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