

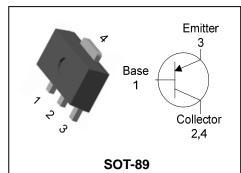
DP500F

PNP Silicon Transistor

Description

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

PIN Connection



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	А
Collector power dissipation	P _C	0.5	\ \/
Collector power dissipation	P _C *	1	W
Junction temperature	TJ	150	°C
Storage temperature	T_{stg}	-55~150	°C

^{*:} When mounted on ceramic substrate(250 mm $^2 \times 0.8t$)

Electrical Characteristics

(Ta=25°C)

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

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

Electrical Characteristic Curves

Fig. 1 Pc - Ta

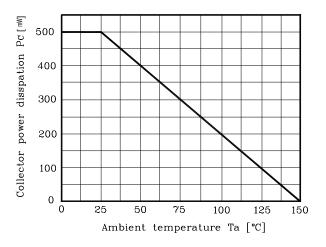


Fig. 3 h_{FE} - I_{C}

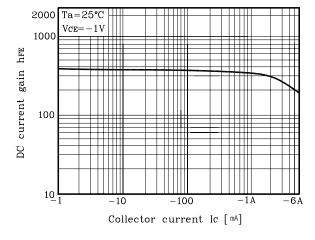


Fig. 2 Ic - V_{BE}

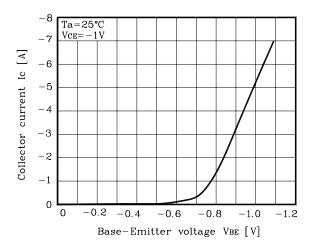
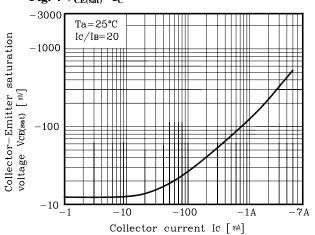


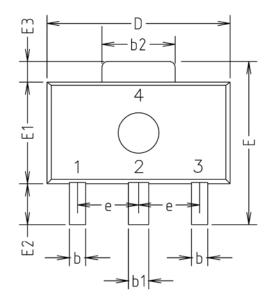
Fig. 4 $V_{CE(sat)}$ - I_C

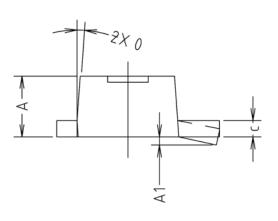


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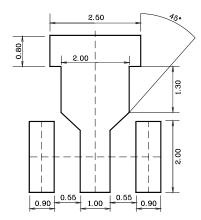
Outline Dimension(mm)





	MILLIMETERS			
SYMBOL	MINIMUM	NOMINAL	MAXIMUM	NOTE
Α	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	
С	0.40	0.42	0.46	
D	4.40	4.50	4.70	
Ε	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	
е		1.50 TYP.		
0		4° TYP.		

*Recommend PCB solder land [Unit: mm]



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