

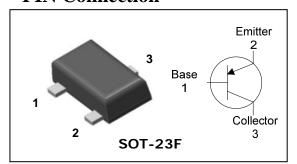
DP100S

PNP Silicon Transistor

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 DN100S
- Switching Application

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
DP100S	<u>P03</u> □ ① ②	SOT-23F

①Device Code ② Year&Week 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	-1	А
Collector dissipation	P _C	200	mW
Junction temperature	Tj	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}	$I_C = -50 \mu A, I_E = 0$	-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}	$V_{CB} = -12V, I_{E} = 0$	-	-	-0.1	μΑ
Emitter cut-off current	I _{EBO}	$V_{EB} = -5V$, $I_{C} = 0$	-	-	-0.1	μΑ
DC current gain	h _{FE1}	$V_{CE} = -1V$, $I_{C} = -100$ mA	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} =-5 V , I_{C} =-50 mA	-	330	-	MHz
Collector output capacitance	C _{ob}	V_{CB} =-10V, I_{E} =0, f =1MHz	-	9	-	pF

Electrical Characteristic Curves

Fig. 1 P_C - T_a

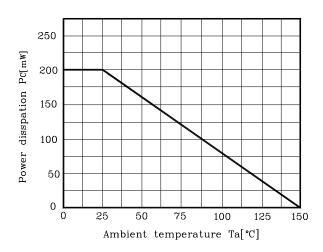


Fig. 3 $h_{\text{FE}} \! . I_{\text{C}}$

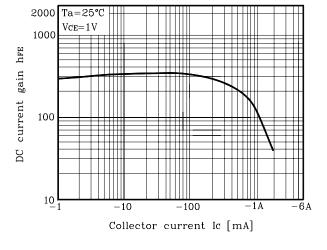


Fig. 2 I_{C} - V_{BE}

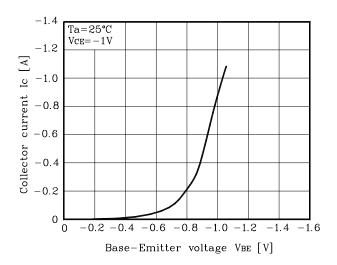
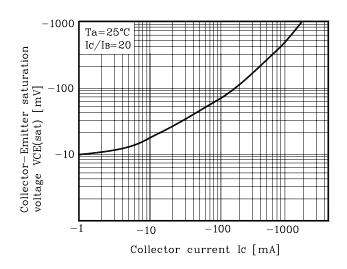
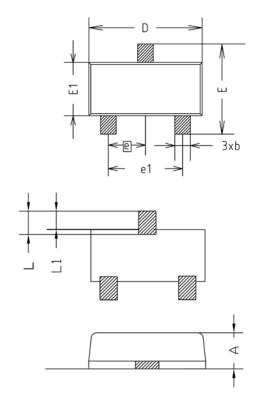
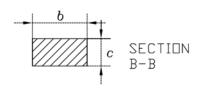


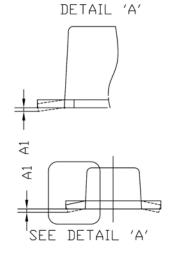
Fig. 4 $V_{CE(sat)}$ - I_C



Outline Dimension

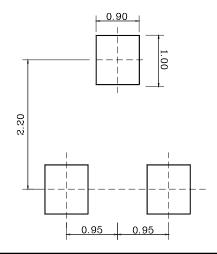






SYMBOL	١	NOTE			
STADUL	MINIMUM	NDMINAL	MAXIMUM	NUIL	
Α	0.80	0.90	1.00		
A1	0.00	-	0.10		
b	0.35	0.40	0.45		
C	0.10	0.15	0.20		
D	2.80	2.90	3.00		
Ε	2.30	2.40	2.50		
E1	1.50	1.60	1.70		
е	0.95BSC				
e1	1.80	1.90	2.00		
L	0.48	0.58	0.68		
L1	0.30	-	0.50		

***Recommend PCB solder land [Unit: mm]**



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