

Power Transistor

2SD1898

■ Features

- High V_{CEO} , $V_{CEO}=80V$.
- High I_C , $I_C=1A$ (DC) .
- Good h_{FE} linearity .
- Low $V_{CE(sat)}$.

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	80	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1	A
	I_C (Pulse) *1	2	A
Collector power dissipation	P_C	0.5	W
	P_C *2	2	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

*1. $P_w=20ms$.

*2. 40X40X0.7mm Ceramic board.

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	BV_{CBO}	$I_C=50\mu A$	120			V
Collector-emitter voltage	BV_{CEO}	$I_C=1mA$	80			V
Emitter-base voltage	BV_{EBO}	$I_E=50\mu A$	5			V
Collector cutoff current	I_{CBO}	$V_{CB}=100V$			1	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=4V$			1	μA
Forward current transfer ratio	h_{FE}	$V_{CE}=3V, I_C=0.5A$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=20mA$		0.15	0.4	V
Transition frequency	f_T	$V_{CE}=10V, I_E=-50mA, f=100MHz$		100		MHz
Output capacitance	C_{ob}	$V_{CB}=10V, I_E=0A, f=1MHz$		20		pF

■ h_{FE} Classification

Marking	DF		
Rank	P	Q	R
h_{FE}	82~180	120~270	180~390

