2SD1898

NPN-General use transistor

1W 、1.0A、32V

SOT-89

1：Base 2：Collector 3：Emitter

Applications：

Can be used for switching and amplifying in various electrical and electronic equipments

Absolute Maximum Ratings (T_a = 25℃)

parameters	symbol	rating	unit
collector-emitter voltage（I_B=0）	V_{CEO}	32	V
collector-base voltage（I_E=0）	V_{CBO}	40	V
emitter - base voltage（I_C=0）	V_{EBO}	6	V
Collector current	I_C	1	A
Total power dissipation (T_A=25℃)*	P_{tot}	1	W
Max junction temperature	T_{jm}	150	℃
Storage temperature	T_{stg}	-55～150	℃

* mounted on printed circuit board.

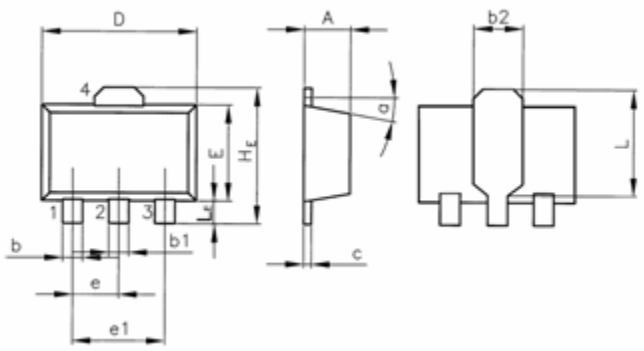
Electrical Characteristics (T_a = 25℃) (Unless otherwise specified)

parameters		symbol	Test condition	min	typ	max	unit
collector-emitter breakdown voltage		$V_{(BR)CEO}$	I_C=2mA，I_B=0	32	—	—	V
collector- base breakdown voltage		$V_{(BR)CBO}$	I_C=100μA，I_E=0	40	—	—	V
emitter - base breakdown voltage		$V_{(BR)EBO}$	I_E=100μA，I_C=0	6	—	—	V
Forward current transfer ratio[1)]	2SD1898Q	h_{FE}	V_{CE}=1V；I_C=100mA	120		270	—
	2SD1898R			180	—	390	
collector-base cutoff current		I_{CBO}	V_{CB}=35V，I_E=0	—	—	100	nA
emitter-base cutoff current		I_{EBO}	V_{EB}=6V，I_C=0	—	—	100	nA
collector-emitter saturation voltage[1)]		$V_{CE\ (sat)}$	I_C=800mA，I_B=80mA	—	—	0.5	V
Transition frequency		f_T	I_C=50mA V_{CE}=10V，f=100MHz	—	100	—	MHz

[1)] pulse method：t_w:300μs，duty ratio≤2%.

Outline dimensions（see fig.1）

unit：mm



dimensions / symbols	SOT-89		
	min	typ	max
A	1.4		1.6
b	0.35		0.55
b1	0.4		0.65
b2		1.6	
c	0.35		0.45
D	4.4		4.6
E	2.35		2.55
e		1.5	
e1		3	
H_E		4.15	
L		2.7	
L_E		1.0	
α		5o	