



Micro Commercial Components



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2SD1898-P 2SD1898-Q 2SD1898-R

NPN Silicon Power Transistors

Features

- Halogen free available upon request by adding suffix "-HF"
- High V_{CEO} , $V_{CEO}=80V$
- High I_C , $I_C=1.0A(DC)$
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

Symbol	Rating	Value	Unit
V_{CEO}	Collector-Emitter Voltage	80	V
V_{CBO}	Collector-Base Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current, DC	1.0	A
	Pulse ⁽¹⁾	2.0	A
P_C	Collector Power Dissipation ⁽²⁾	0.5	W
		2.0	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

V_{CEO}	Collector-Emitter Breakdown Voltage ($I_C=1.0mA$)	80	---	---	Vdc
V_{CBO}	Collector-Base Breakdown Voltage ($I_C=50\mu A$)	100	---	---	Vdc
V_{EBO}	Emitter-Base Breakdown Voltage ($I_E=50\mu A$)	5.0	---	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=80Vdc$)	---	---	1.0	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=4.0Vdc$, $I_C=0$)	---	---	1.0	μA
h_{FE}	DC Current Transfer Ratio ⁽³⁾ ($V_{CE}=3.0Vdc$, $I_C=0.5A$)	82	---	390	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C/I_E=500mA/20mA$)	---	0.15	0.4	Vdc
f_T	Transition Frequency ($V_{CE}=10Vdc$, $I_C=50mA$, $f=100MHz$)	---	100	---	MHz
C_{ob}	Output Capacitance ($V_{CB}=10Vdc$, $I_C=0$, $f=1.0MHz$)	---	20	---	pF

(1) $P_w=20ms$, duty=1/2

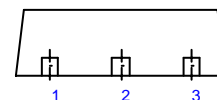
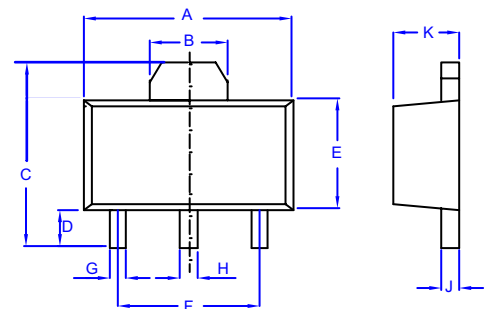
(2) When mounted on a 40x40x0.7mm ceramic board.

(3) Measured using pulse current

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	DF		

SOT-89



1. BASE
2. COLLECTOR
3. EMITTER

DIM	INCHES		MM		NOTES
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.061	----	1.55	----	REF.
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	----	3.00	----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 1Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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