

**M·C·C**

Micro Commercial Components



Micro Commercial Components  
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**2SD1898-P  
2SD1898-Q  
2SD1898-R**

## 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 Pulse <sup>(1)</sup>	1.0 2.0	A
$P_C$	Collector Power Dissipation <sup>(2)</sup>	0.5 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
<b>OFF CHARACTERISTICS</b>					
$V_{CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=1.0mA$ )	80	---	---	Vdc
$V_{CBO}$	Collector-Base Breakdown Voltage ( $I_B=50\mu A$ )	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	$\mu A$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=4.0Vdc$ , $I_B=0$ )	---	---	1.0	$\mu A$
$h_{FE}$	DC Current Transfer Ratio <sup>(3)</sup> ( $V_{CE}=3.0Vdc$ , $I_C=0.5mA$ )	82	---	390	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C/I_B=500mA/20mA$ )	---	0.15	0.4	Vdc
$f_T$	Transition Frequency ( $V_{CE}=10Vdc$ , $I_E=50mA$ , $f=100MHz$ )	---	100	---	MHz
$C_{bb}$	Output Capacitance ( $V_{CB}=10Vdc$ , $I_E=0$ , $f=1.0MHz$ )	---	20	---	pF

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

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

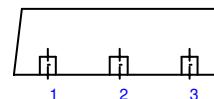
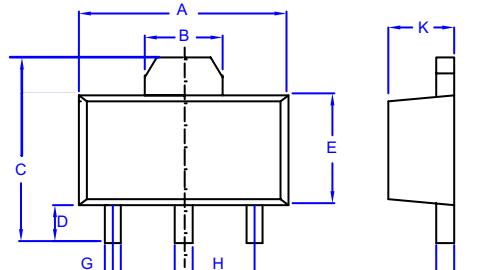
(3) Measured using pulse current

## CLASSIFICATION OF $h_{FE}$

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

## NPN Silicon Power Transistors

### SOT-89



1. OUT  
2. GND  
3. IN

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	



TM

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## Ordering Information :

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

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

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