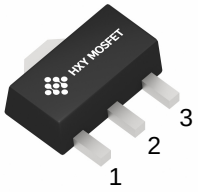
2SD1898

NPN Plastic-Encapsulate Transistors

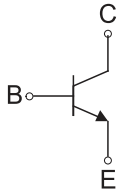
Features

- High voltage: V_{CEO}=80V
- High Breakdown Voltage and Current
- Excellent DC Current Gain Linearity
- Low Collector-Emitter Saturation Voltage

1. BASE
2. COLLECTOR
3. EMITTER



SOT-89



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
2SD1898	SOT-89	DFQ/DF	1000

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1	A
P_C	Collector Power Dissipation	0.5	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

Electrical Characteristics(Ta=25°C unless otherwise specified)

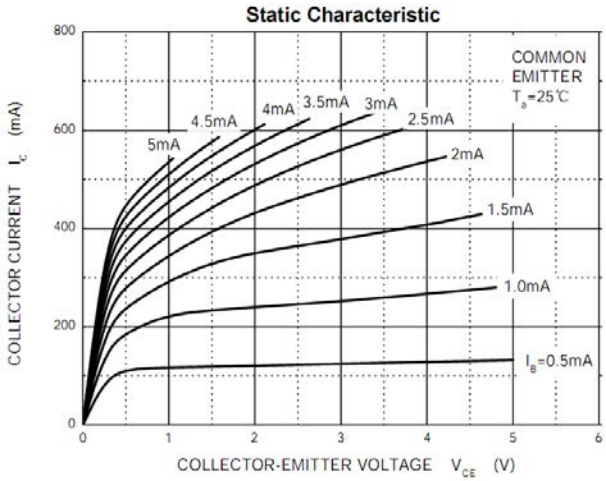
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA , I_E=0	100		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C= 1mA, I_B=0	80		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 50μA, I_C=0	5		V
Collector cut-off current	I_{CBO}	V_{CB}=80V, I_E=0		1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0		1	μA
DC current gain	h_{FE}	V_{CE}=5V, I_C=200mA	120	390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500m A, I_B=20mA		0.4	V
Transition frequency	f_T	V_{CE}=10V, I_C=200mA	100		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		20	pF

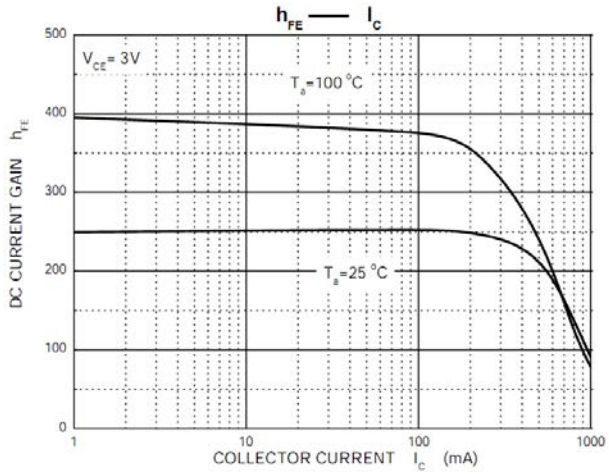
*pulse test

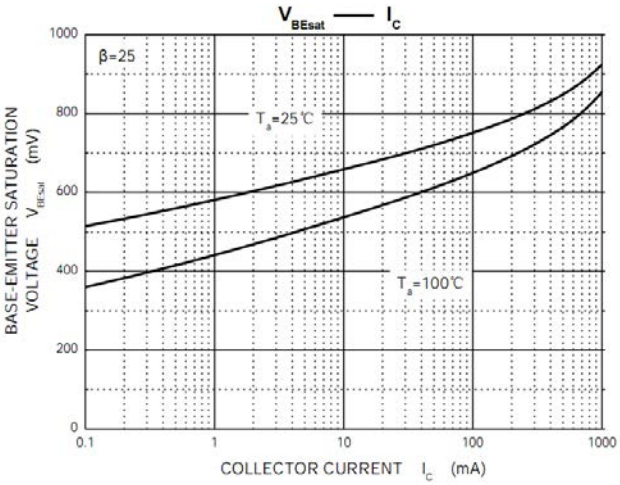
Classifiction Of hFE

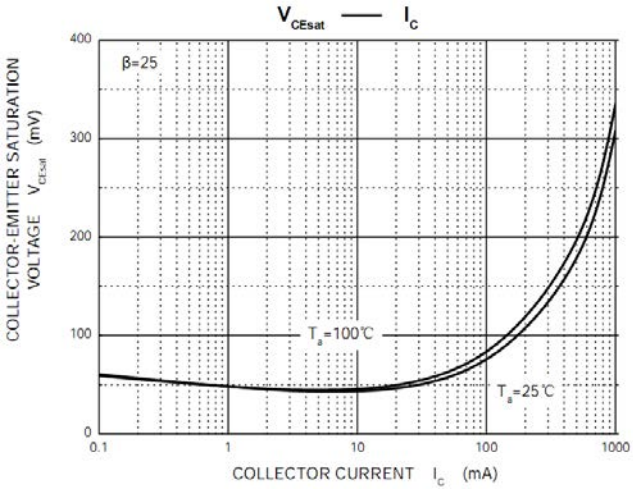
Rank	2SD1898Q	2SD1898R
Range	120-270	180-390
Marking	DFQ	DF

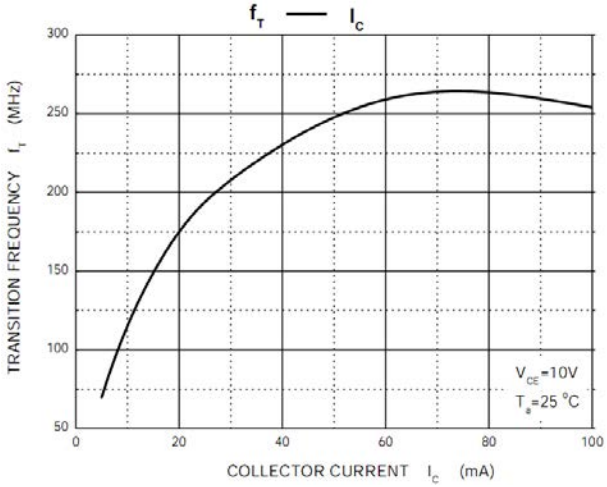
Typical Characteristics

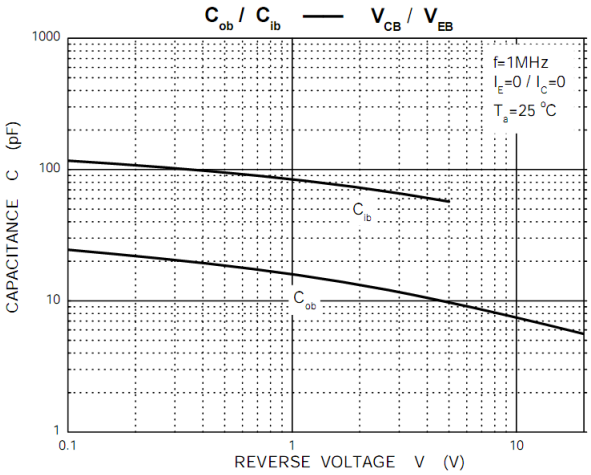


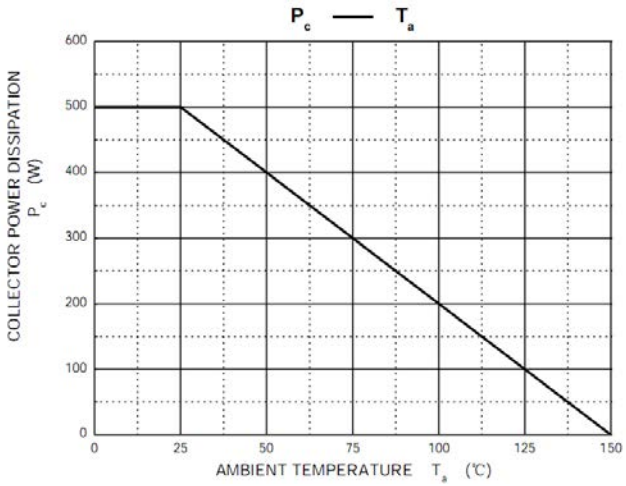




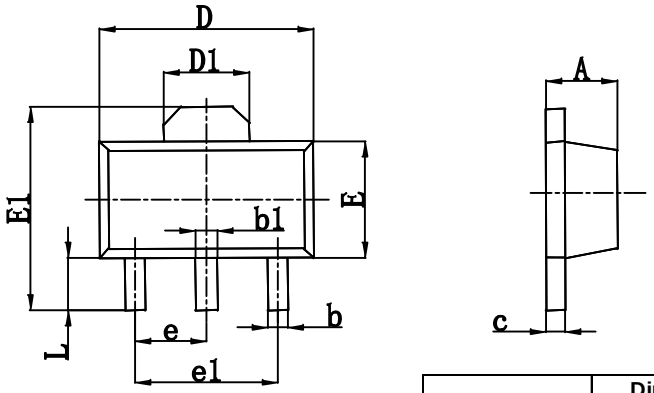








SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

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