



Micro Commercial Components

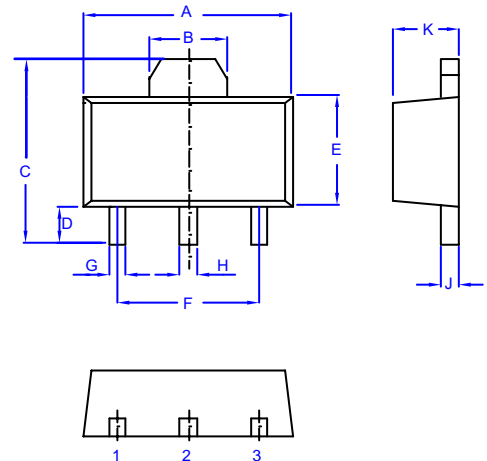


Micro Commercial Components
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2SD1766-P
2SD1766-Q
2SD1766-R

NPN
Plastic-Encapsulate
Transistors

SOT-89



- 1. Base
- 2. Collector
- 3. Emitter

DIM	DIMENSINS				NOTES
	INCHES		MM		
	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	

Features

- Halogen free available upon request by adding suffix "-HF"
- Complements to 2SB1188
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	32	V
V _{CBO}	Collector-Base Voltage	40	V
V _{EBO}	Emitter-Base Voltage	5.0	V
I _C	Collector Current	1.0	A
P _C	Collector dissipation	500	mW
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 _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =50µAdc, I _E =0)	40	---	---	Vdc
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =1.0mAdc)	32	---	---	Vdc
V _{(BR)EBO}	Collector-Emitter Breakdown Voltage (I _E =50µAdc, I _C =0)	5.0	---	---	Vdc
I _{CBO}	Collector Cutoff Current (V _{CB} =20Vdc, I _E =0)	---	---	1.0	µAdc
I _{EBO}	Emitter Cutoff Current (V _{EB} =4.0Vdc, I _C =0)	---	---	1.0	µAdc

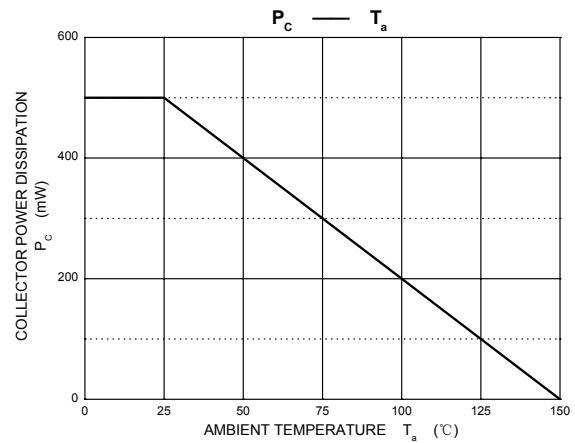
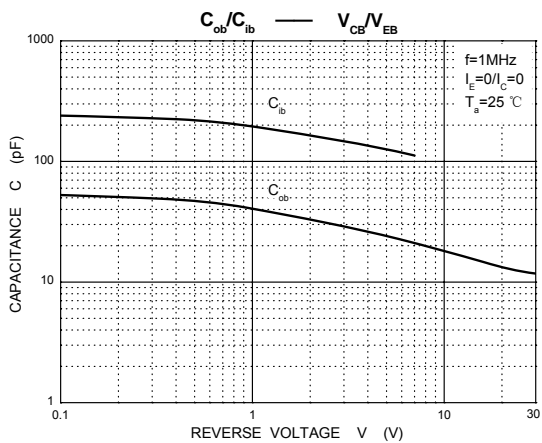
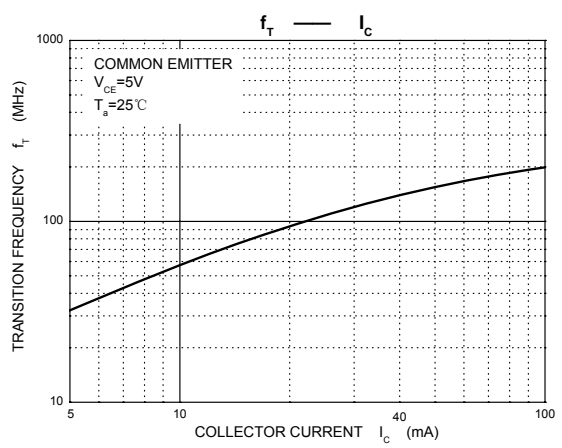
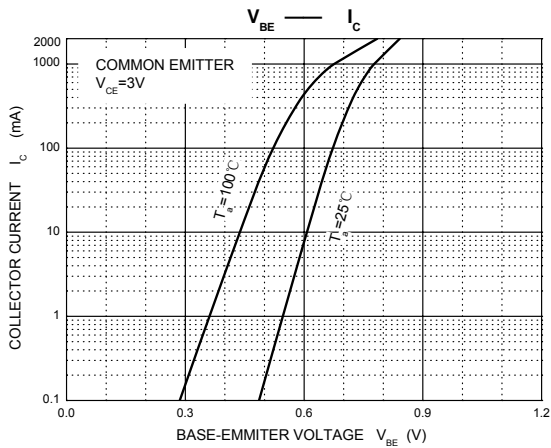
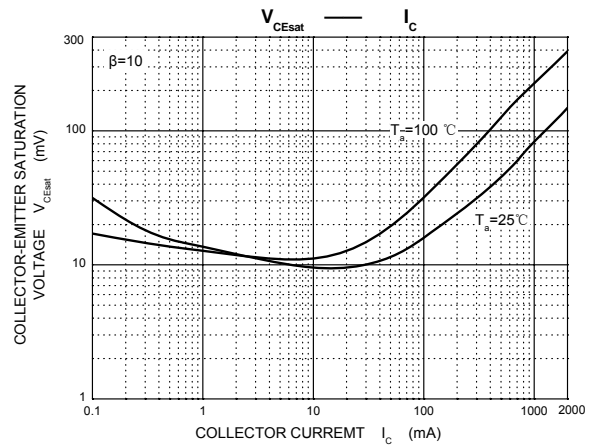
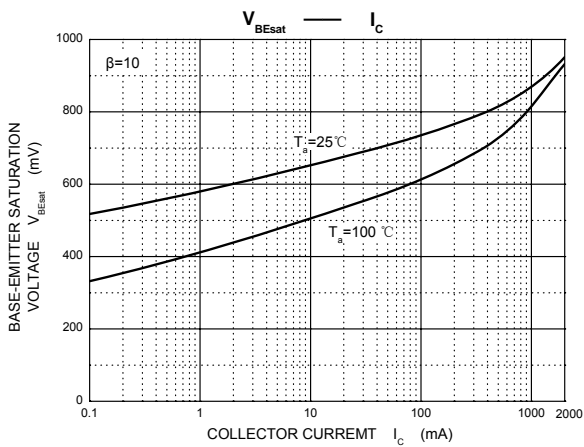
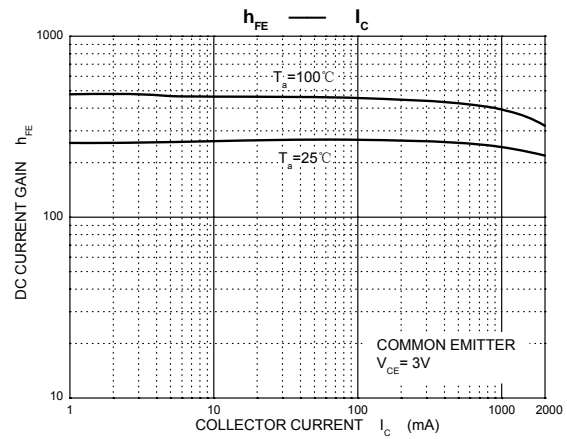
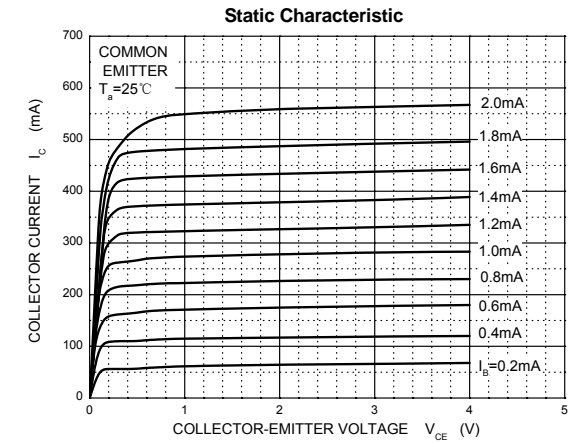
ON CHARACTERISTICS

h _{FE}	DC Current Gain (I _C =500mAdc, V _{CE} =3.0Vdc)	82	---	390	---
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =2.0Adc, I _B =0.2Adc)			0.8	Vdc
f _T	Gain-Bandwidth product (V _{CE} =5V, I _C =50mA, f=100MHz)	---	100	---	MHz
Cob	Out Capacitance (V _{CB} =10V, f=1.0MHz, I _E =0)	---	30	---	pF

hFE(1) CLASSIFICATION

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	DBP	DBQ	DBR

Typical Characteristics





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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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