



Micro Commercial Components



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2SB1386-P
2SB1386-Q
2SB1386-R

Features

- Low Collector Saturation Voltage
- Excellent current-to-gain characteristics
- 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
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{CBO}	Collector-Base Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-6.0	V
I_C	Collector Current	-5.0	A
I_{CP}	Pulsed Collector Current	-10	A
P_C	Collector power dissipation	0.5	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

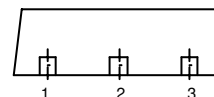
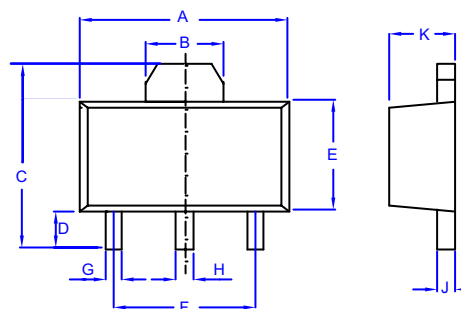
Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CBO}$	Collector-base Breakdown Voltage ($I_C=-50\mu\text{Adc}$, $I_E=0$)	-30	---	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=-1\text{mAdc}$, $I_B=0$)	-20	---	---	Vdc
$V_{(BR)EBO}$	Emitter-base Breakdown Voltage ($I_E=-50\mu\text{Adc}$, $I_C=0$)	-6	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=-20\text{Vdc}$, $I_E=0$)	---	---	-0.5	μAdc
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=-5\text{Vdc}$, $I_C=0$)	---	---	-0.5	μAdc
$h_{FE(1)}$	DC Current Gain ($I_C=-0.5\text{Adc}$, $V_{CE}=-2.0\text{Vdc}$)	82	---	390	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=-4\text{Adc}$, $I_B=-0.1\text{Adc}$)	---	---	-1.0	Vdc
f_T	Transition Frequency ($V_{CE}=-6\text{Vdc}$, $I_C=-50\text{mAdc}$, $f=30\text{MHz}$)	---	120	---	MHz
C_{ob}	Collector output capacitance ($V_{CB}=-20\text{Vdc}$, $I_E=0$, $f=1.0\text{MHz}$)	---	60	---	pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	BHP	BHQ	BHR

**PNP Silicon
Epitaxial Transistors**

SOT-89



1. Emitter
2. Collector
3. Base

DIM	DIMENSIONS				NOTES
	INCHES		MM		
A	MIN .173	MAX .181	MIN 4.39	MAX 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	

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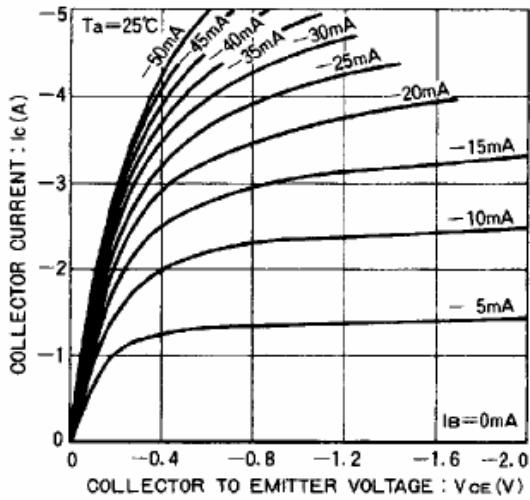


Figure 1

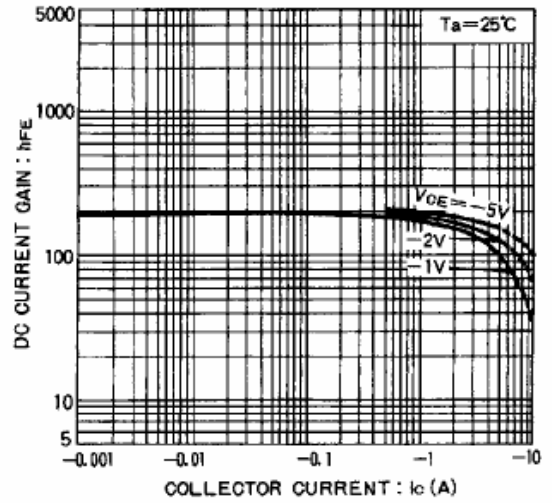


Figure 2

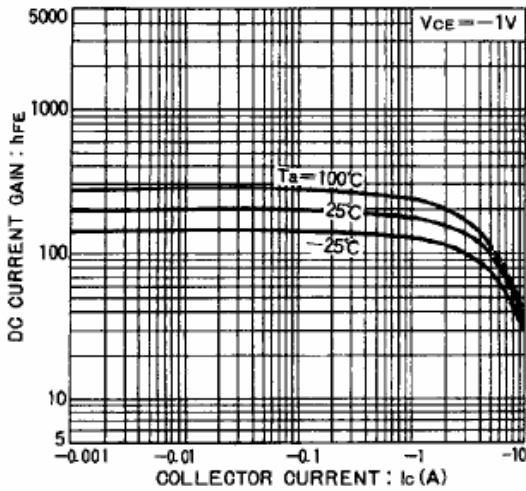


Figure 3

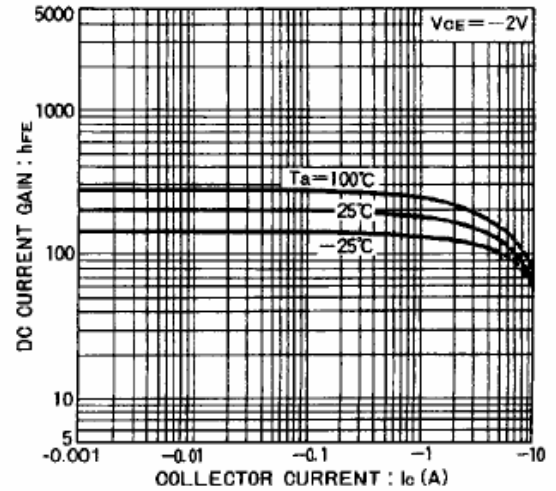


Figure 4

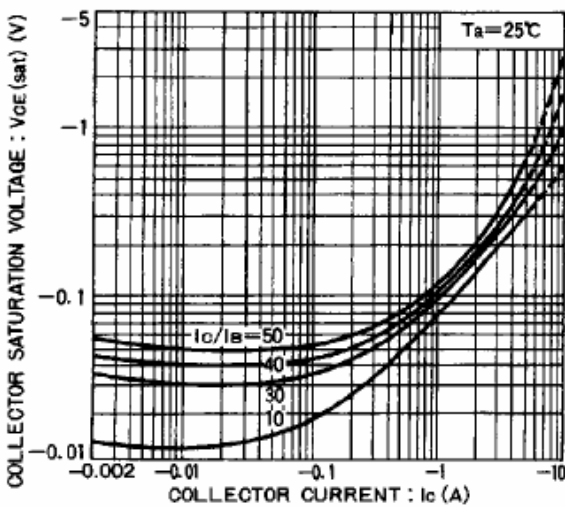


Figure 5

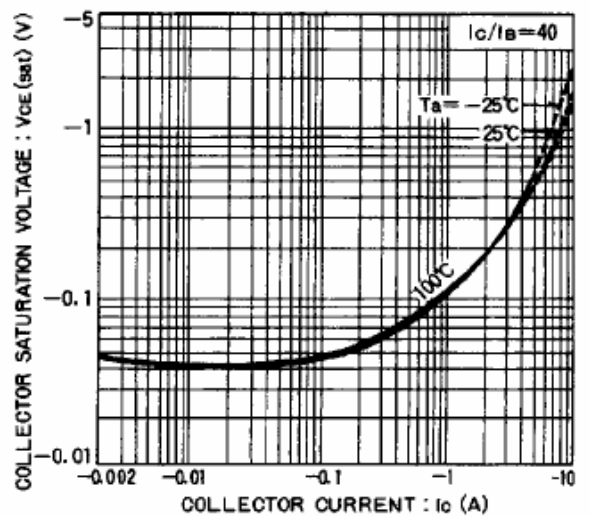


Figure 6

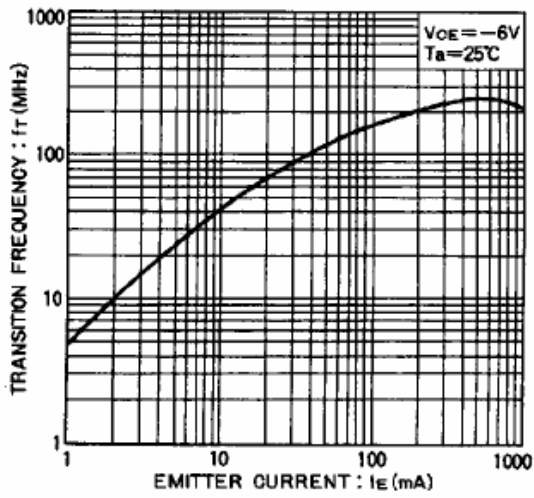


Figure 7

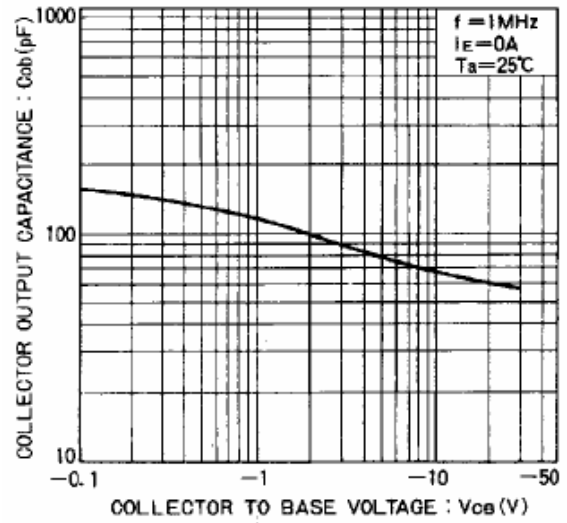


Figure 8

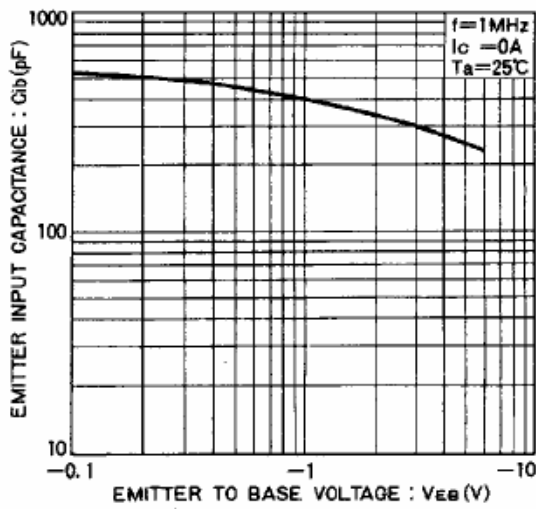


Figure 9



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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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