



**THE DATASHEET OF
2SB1116-K-TP**





Micro Commercial Components



Micro Commercial Components
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2SB1116-L
2SB1116-K
2SB1116-U

Features

- Capable of 0.35Watts of Power Dissipation.
- Collector-current: 1.0A
- Collector-base Voltage: -50V
- Operating and storage junction temperature range: -55°C to +150°C
- 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)
- Halogen free available upon request by adding suffix "-HF"

**PNP Silicon
 Plastic-Encapsulate
 Transistor**

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C = -1\text{mA}$, $I_B = 0$)	-50	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C = -100\mu\text{A}$, $I_E = 0$)	-60	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E = -100\mu\text{A}$, $I_C = 0$)	-6	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB} = -60\text{Vdc}$, $I_E = 0$)	---	-0.1	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB} = -6.0\text{Vdc}$, $I_C = 0$)	---	-0.1	μA

ON CHARACTERISTICS

h_{FE}	DC Current Gain ($I_C = -0.1\text{A}$, $V_{CE} = -2.0\text{Vdc}$) ($I_C = -1.0\text{A}$, $V_{CE} = -2.0\text{Vdc}$)	135 81	600	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C = -1.0\text{A}$, $I_B = -50\text{mA}$)	---	-0.3	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C = -1.0\text{A}$, $I_B = -50\text{mA}$)	---	-1.2	Vdc
V_{BE}	Base-Emitter Voltage ($I_C = -0.05\text{A}$, $V_{CE} = -20\text{Vdc}$)	-0.6	-0.7	Vdc

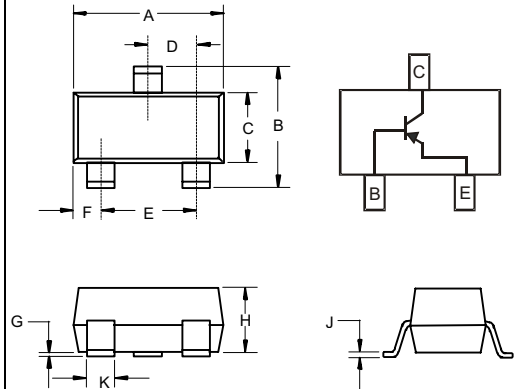
SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C = -0.1\text{A}$, $V_{CE} = -2.0\text{Vdc}$)	70	---	MHz
Cob	Collector Output Capacitance ($V_{CB} = -10\text{Vdc}$, $I_E = 0$, $f = 1\text{MHz}$)	25(typ.)		pF

CLASSIFICATION OF h_{FE}

Rank	L	K	U
Range	135-270	200-400	300-600

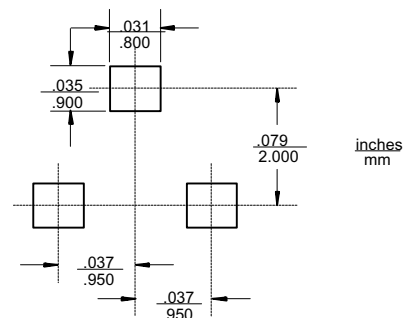
SOT-23



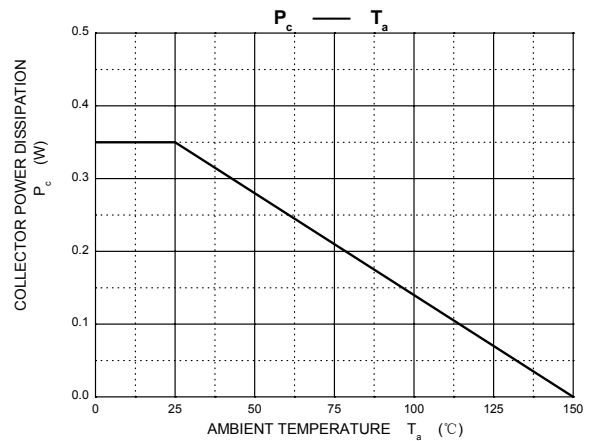
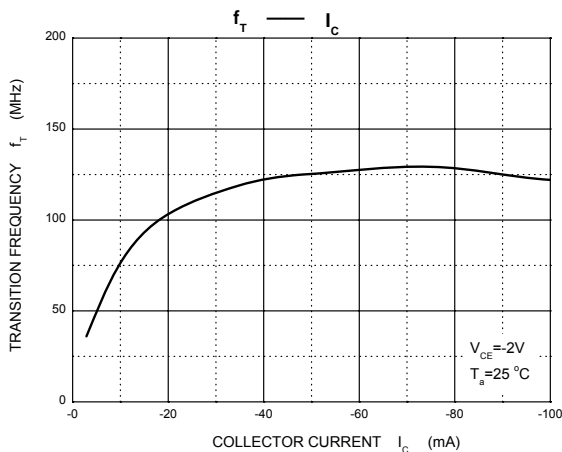
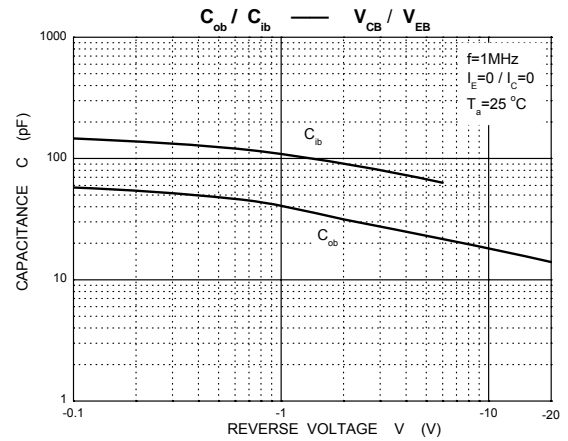
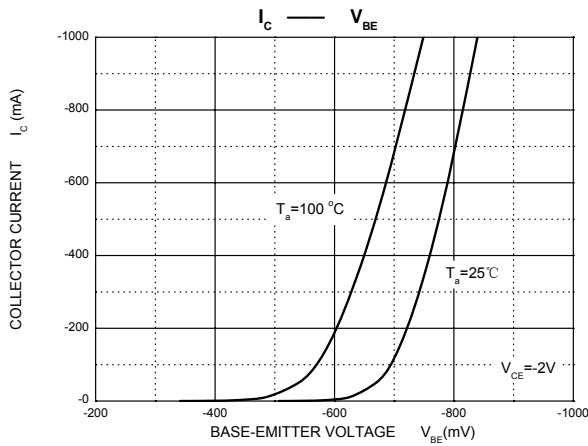
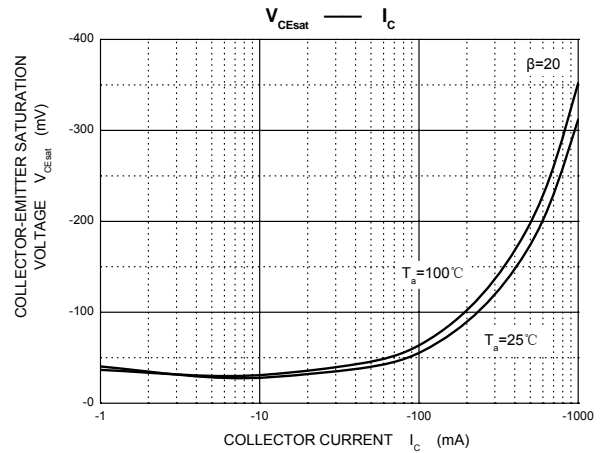
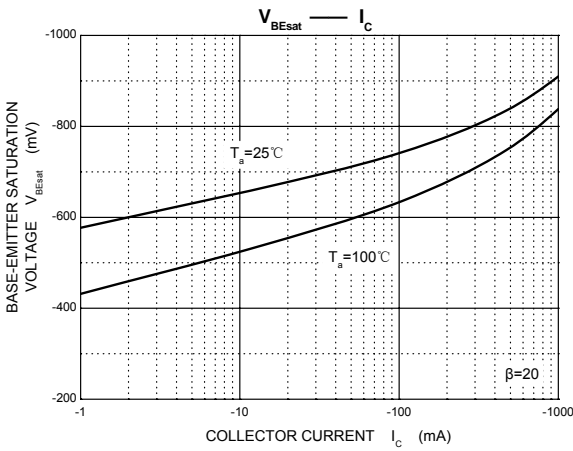
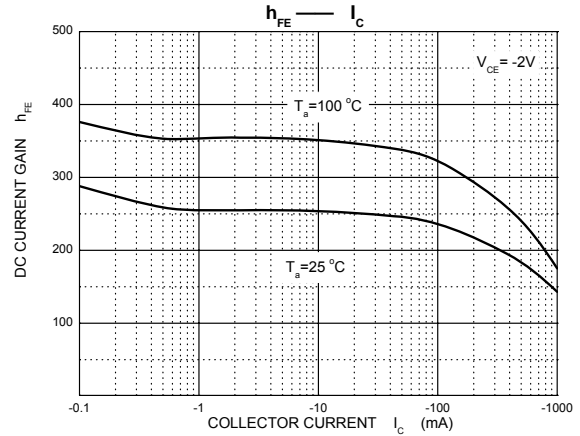
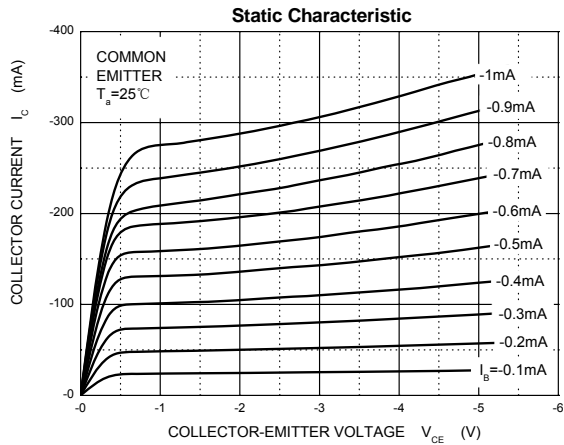
DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



Typical Characteristics





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

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

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