



2SB1184-P

2SB1184-Q

2SB1184-R

Features

- Halogen free available upon request by adding suffix "-HF"
- 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
- Low Collector Saturation Voltage
- Excellent current-to-gain characteristics
- Maximum Thermal Resistance: 125°C/W Junction to Ambient

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{CBO}	Collector-Base Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current	-3.0	A
P_C	Collector power dissipation	1.0	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

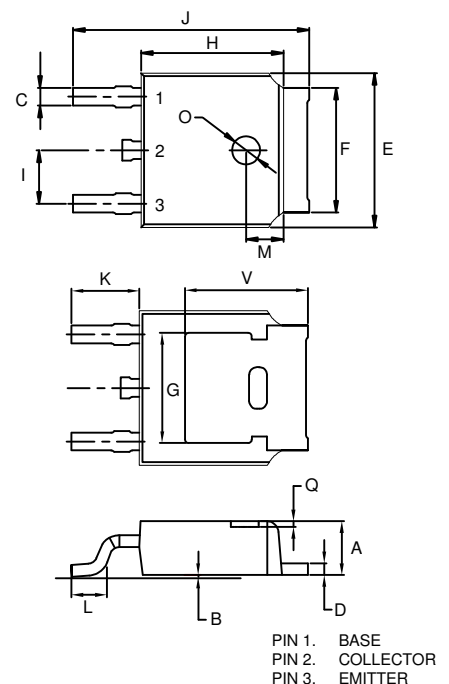
Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CBO}$	Collector-base Breakdown Voltage ($I_C = -50\mu A$, $I_E = 0$)	-60	---	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C = -1mA$, $I_B = 0$)	-50	---	---	Vdc
$V_{(BR)EBO}$	Emitter-base Breakdown Voltage ($I_E = -50\mu A$, $I_C = 0$)	-5	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB} = -40Vdc$, $I_E = 0$)	---	---	-1.0	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB} = -4Vdc$, $I_C = 0$)	---	---	-1.0	μA
$h_{FE(1)}$	DC Current Gain ($I_C = -0.5A$, $V_{CE} = -3.0Vdc$)	82	---	390	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C = -2A$, $I_B = -200mA$)	---	---	-1.0	Vdc
f_T	Transition Frequency ($V_{CE} = -5Vdc$, $I_C = -500mA$, $f = 30MHz$)	---	70	---	MHz
C_{ob}	Collector output capacitance ($V_{CB} = -10Vdc$, $I_E = 0$, $f = 1.0MHz$)	---	50	---	pF

CLASSIFICATION OF h_{FE}

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

PNP Silicon Epitaxial Transistors

DPAK



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

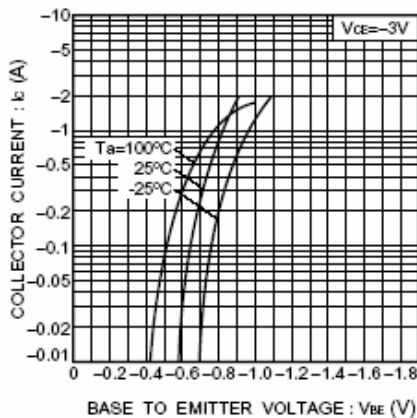


Fig.1 Grounded emitter propagation characteristics

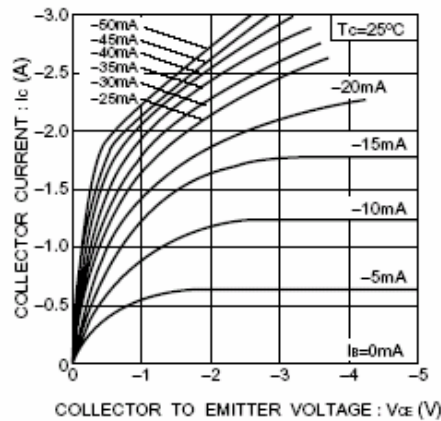


Fig.2 Grounded emitter output characteristics (I)

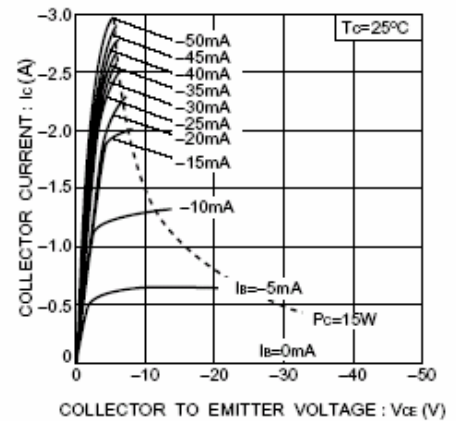


Fig.3 Grounded emitter output characteristics (II)

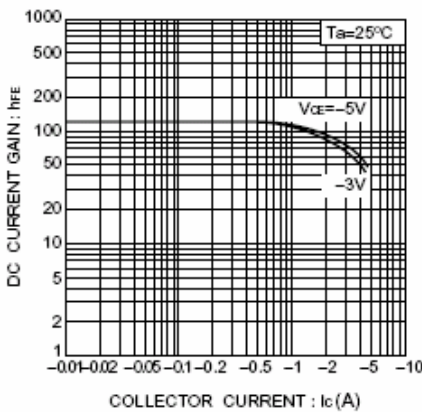


Fig.4 DC current gain vs. collector current (I)

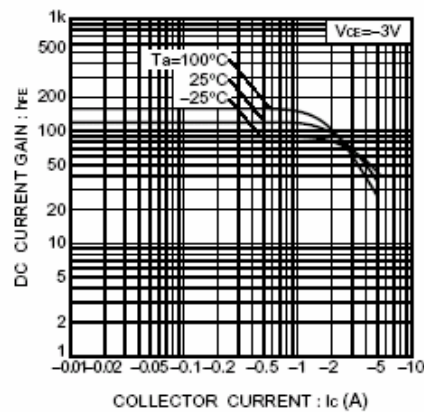


Fig.5 DC current gain vs. collector current (II)

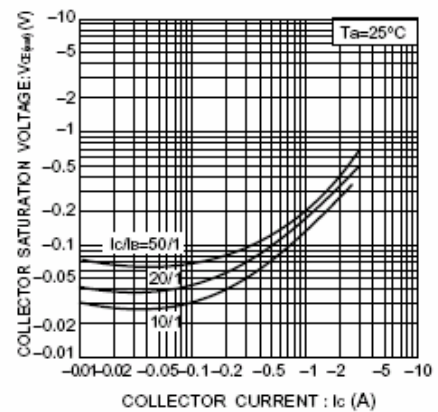


Fig.6 Collector-emitter saturation voltage vs. collector current

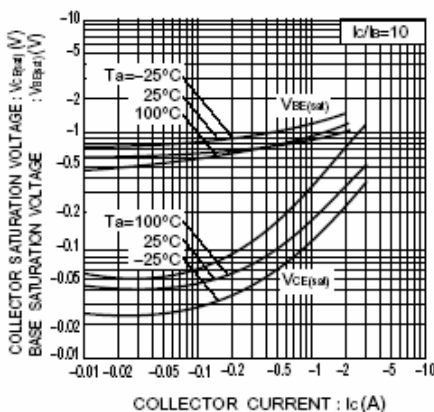


Fig.7 Collector-emitter saturation voltage vs. collector current
Base-emitter saturation voltage vs. collector current

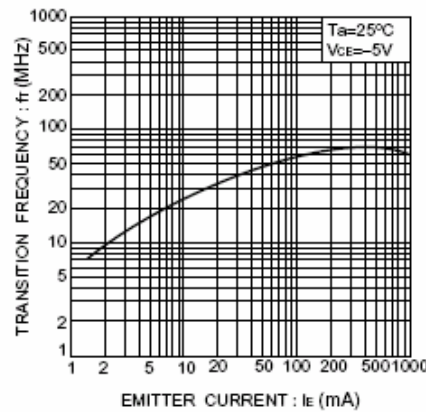


Fig.8 Gain bandwidth product vs. emitter current

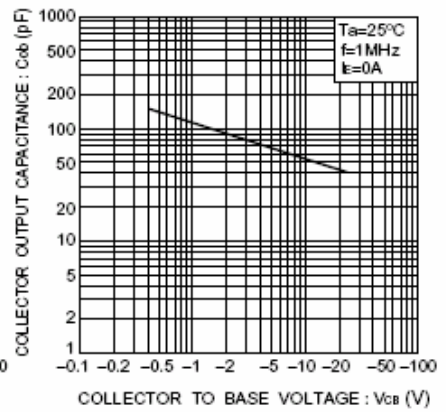


Fig.9 Collector output capacitance vs. collector base voltage

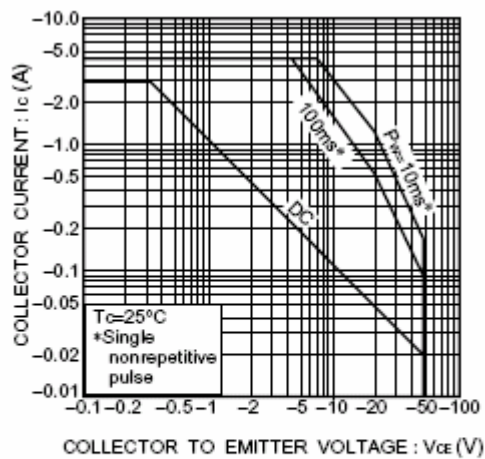


Fig.10 Safe operation area
(2SB1184)

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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

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