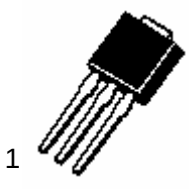
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

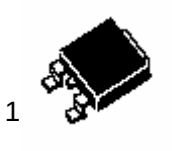
TO-251/TO-252-2Plastic-Encapsulate Transistors

2SB1184 TRANSISTOR (PNP)

TO-251
TO-252-2



1. BASE
2. COLLECTOR
3. EMITTER



FEATURES

- Low $V_{CE(sat)}$. $V_{CE(sat)}$ = -0.5V (Typ.) (I_C/I_B = -2A / -0.2A)
- Complements the 2SD1760 / 2SD1864.

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-3	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-50μA, I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-50μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V, I_E=0			-1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-3V, I_C=-0.5A	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-2A, I_B=-0.2A			-1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1.5A, I_B=-0.15A			-1.2	V
Transition frequency	f_T	V_{CE}=-5V, I_C=-0.5A, f=30MHz		70		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		50		pF

CLASSIFICATION OF $h_{FE(1)}$

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

Typical Characteristics 2SB1184

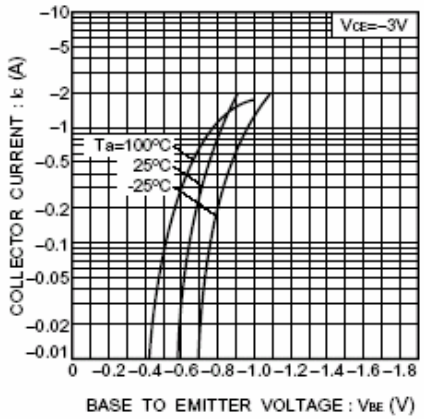


Fig.1 Grounded emitter propagation characteristics

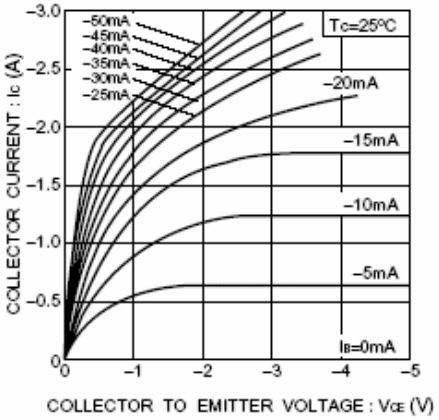


Fig.2 Grounded emitter output characteristics (I)

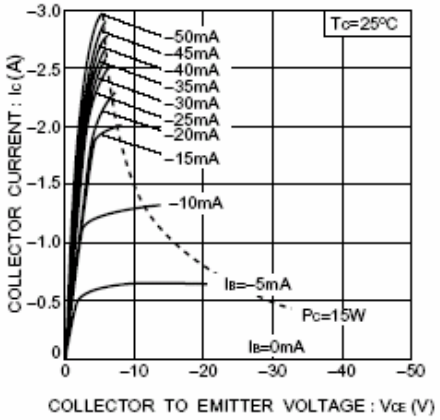


Fig.3 Grounded emitter output characteristics (II)

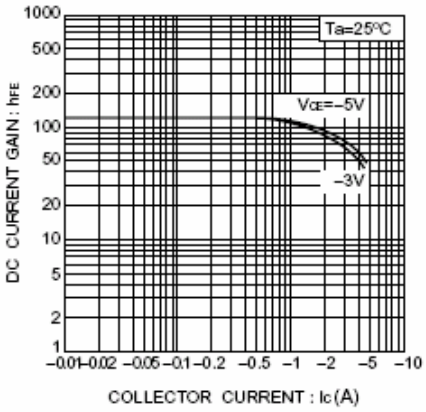


Fig.4 DC current gain vs. collector current (I)

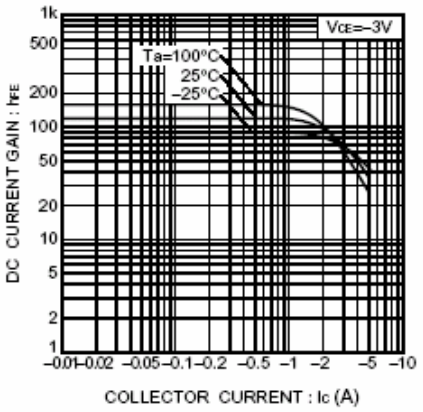


Fig.5 DC current gain vs. collector current (II)

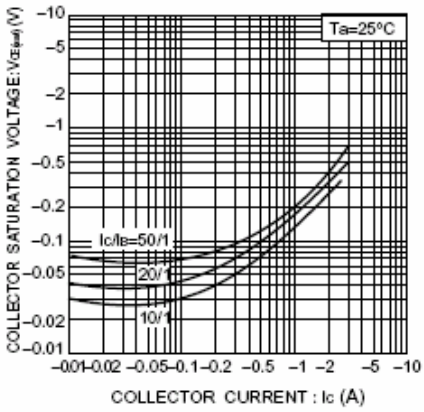


Fig.6 Collector-emitter saturation voltage vs.collector current

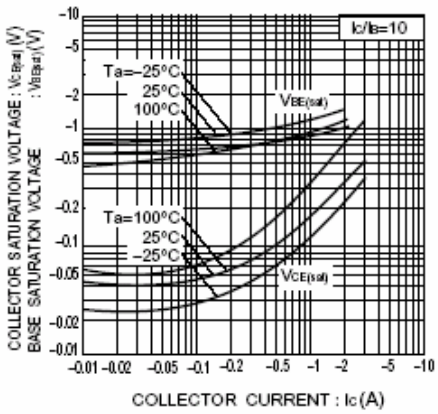


Fig.7 Collector-emitter saturation voltage vs. collector current
Base-emitter saturation voltage vs. collector current

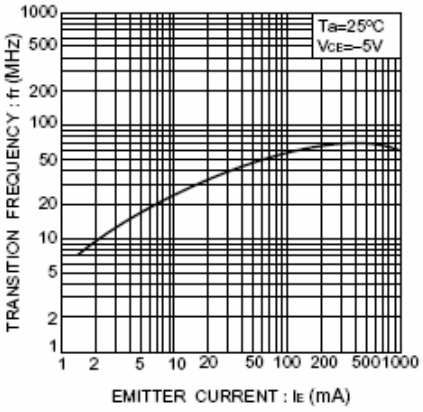


Fig.8 Gain bandwidth product vs. emitter current

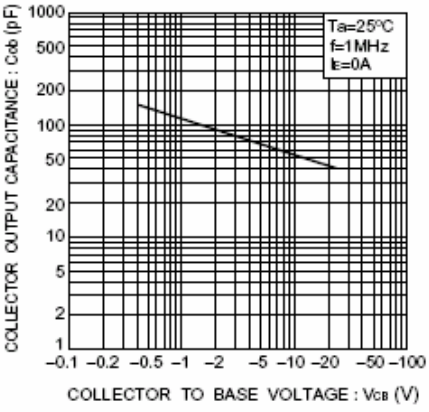


Fig.9 Collector output capacitance vs. collector base voltage

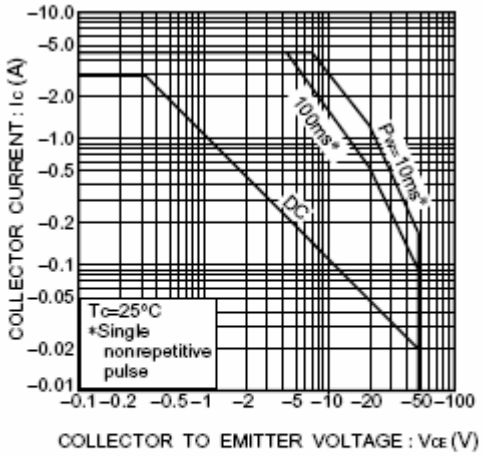


Fig.10 Safe operation area
(2SB1184)