Power Transistor 2SB1184

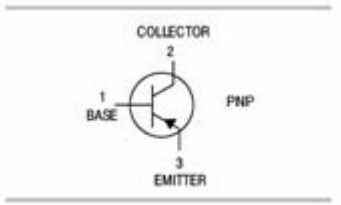
FEATURES

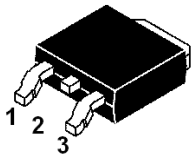
- Low $V_{CE(sat)}$.
  $V_{CE(sat)}$=-0.5V(Typ)(I_C/I_B=-2A/-0.2A)
- Complements the 2SD1760.

Lead-free

APPLICATIONS

- Epitaxial planar type.
- PNP silicon transistor.





TO-252

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Volage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-3	A
I_{CP}	Collector Power Dissipation	-4.5	A
P_C	Collector Power Dissipation	1	W
T_j ,T_{stg}	Junction and Storage temperature range	-55 to +150	℃

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ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

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

CLASSIFICATION OF $h_{FE(1)}$

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

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

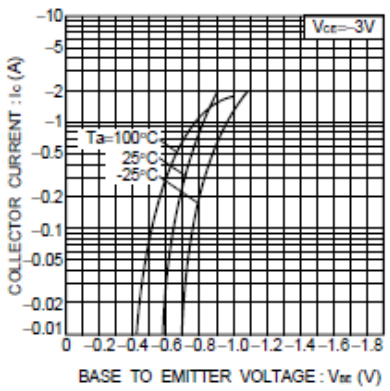

Fig.1 Grounded emitter propagation characteristics

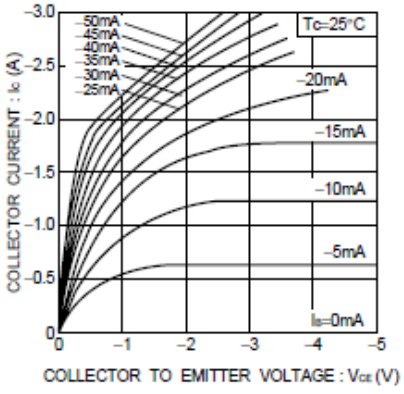

Fig.2 Grounded emitter output characteristics (I)

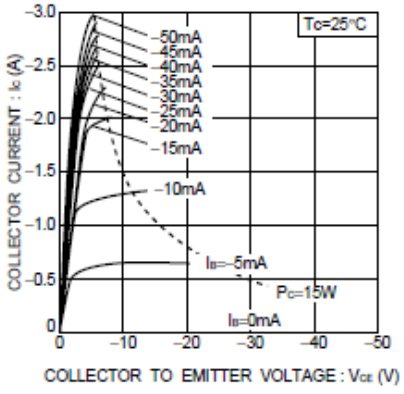

Fig.3 Grounded emitter output characteristics (II)

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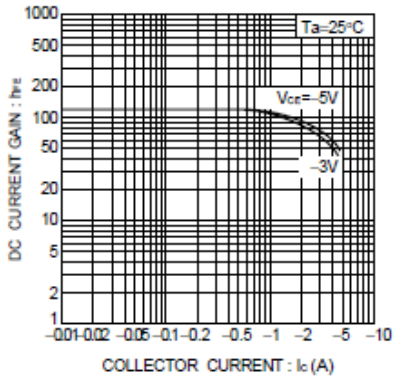

Fig.4 DC current gain vs. collector current (I)

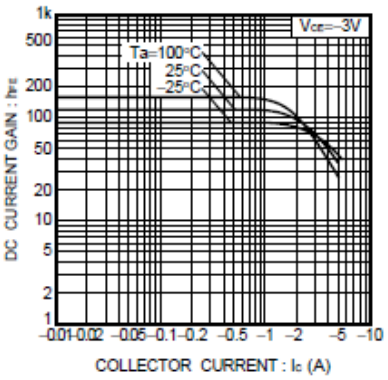

Fig.5 DC current gain vs. collector current (II)

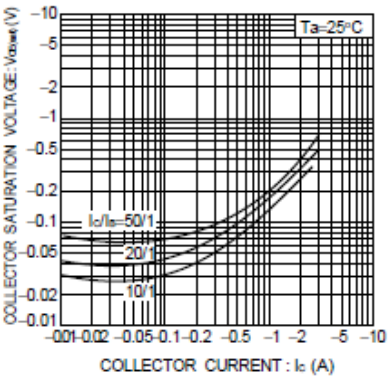

Fig.6 Collector-emitter saturation voltage vs.collector current

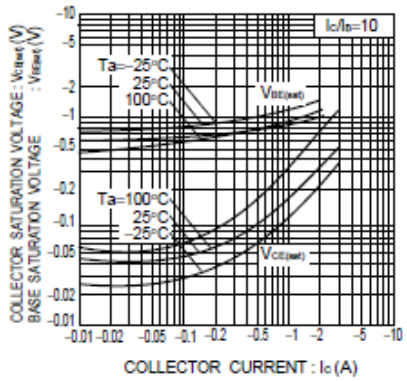

Fig.7 Collector-emitter saturation voltage vs. collector current
Base-emitter saturation voltage vs. collector current

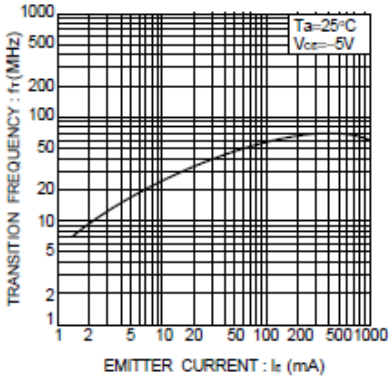

Fig.8 Gain bandwidth product vs. emitter current

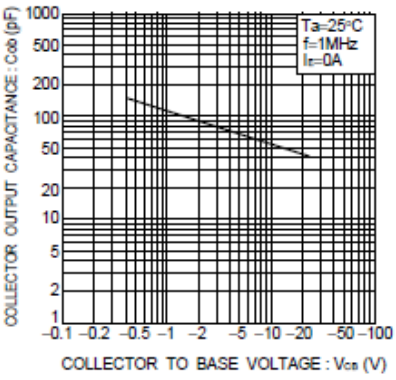

Fig.9 Collector output capacitance vs. collector base voltage

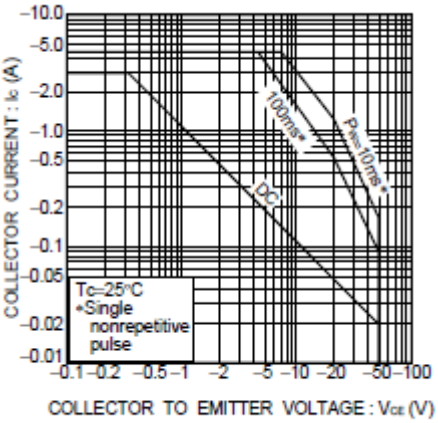

Fig.10 Safe operation area

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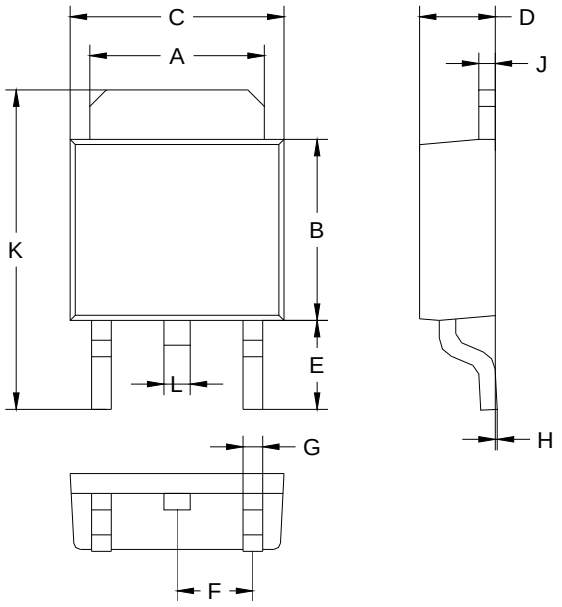
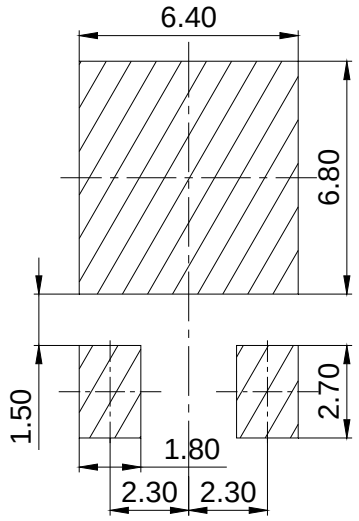
PACKAGE OUTLINE

Plastic surface mounted package TO-252



TO-252		
A	5.20	5.40
B	1.35	1.65
C	6.35	6.65
D	2.30 Typ.	
E	2.6	2.8
F	2.20	2..40
G	0.60 Typ	
H	0.02	0.1
J	0.50 Typ.	
K	9.50	9.90
L	0.80 Typ.	
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

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PACKAGE INFORMATION

Device	Package	Shipping
2SB1184	TO-252	80PCS/Tube
		2500PCS/Tape&Reel