

Medium Power Transistor

2SB1182

FEATURES

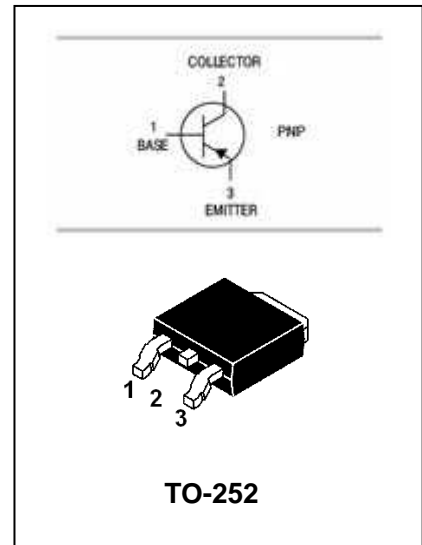
- Low $V_{CE(sat)}$.
 $V_{CE(sat)} = -0.5V$ (Typ) ($I_C/I_B = -2A/-0.2A$)
- Complements the 2SD1758.



Lead-free

APPLICATIONS

- Epitaxial planar type.
- PNP silicon transistor.



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-2(DC)	A
		-3(Pulse)	A
P_C	Collector Power Dissipation	1.5	W
T_j, T_{stg}	Junction and Storage temperature range	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	$I_C=-50\mu A, I_E=0$	-40			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=-1mA, I_B=0$	-32			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=-50\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20V, I_E=0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EBO}=-4V, I_C=0$			-1	μA
DC current gain	h_{FE}	$V_{CE}=-3V, I_C=-0.5A$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-2A, I_B=-0.2A$		-0.5	-0.8	V
Transition frequency	f_T	$V_{CE}=-5V, I_E=-0.5A$ $f=30MHz$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0A, f=1MHz$		50		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R
Range	120-270	180-390

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

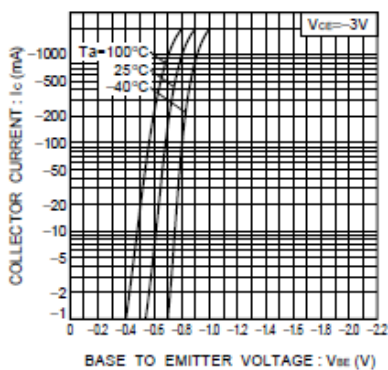


Fig.1 Grounded emitter propagation characteristics

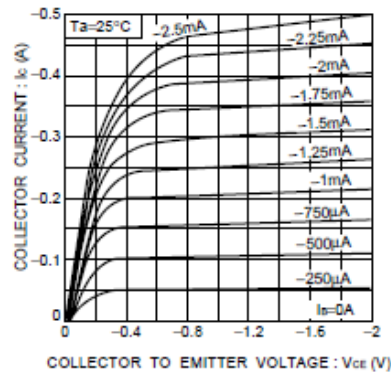


Fig.2 Grounded emitter output characteristics

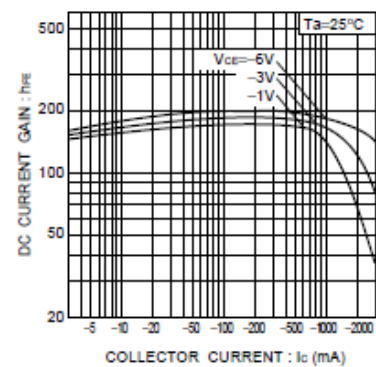


Fig.3 DC current gain vs. collector current (I)

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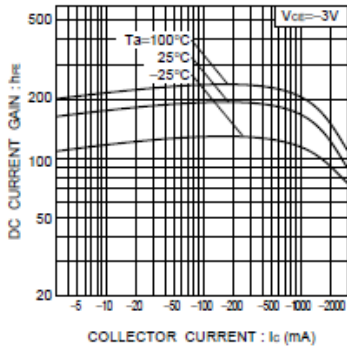


Fig.4 DC current gain vs. collector current (II)

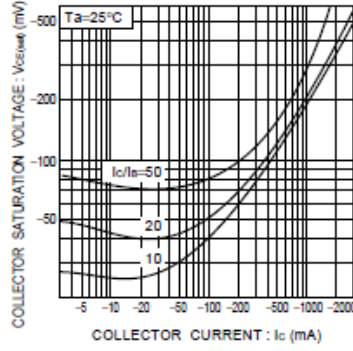


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

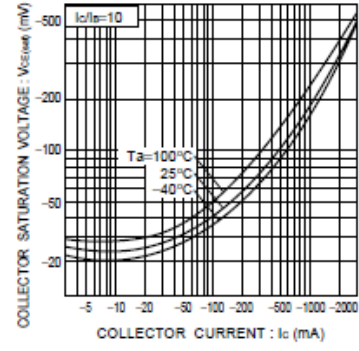


Fig.6 Collector-emitter saturation voltage vs. collector current (II)

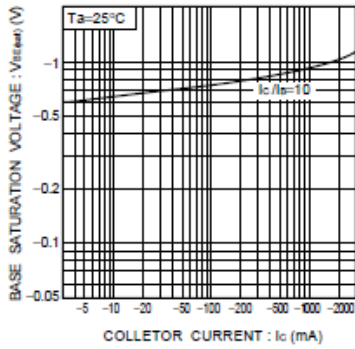


Fig.7 Base-emitter saturation voltage vs. collector current

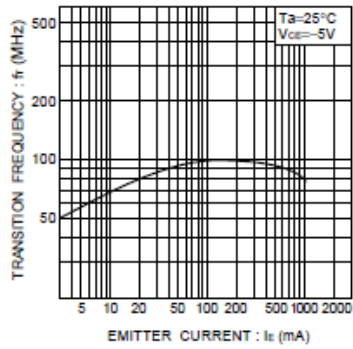


Fig.8 Gain bandwidth product vs. emitter current

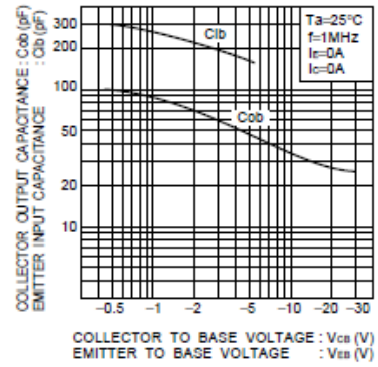


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

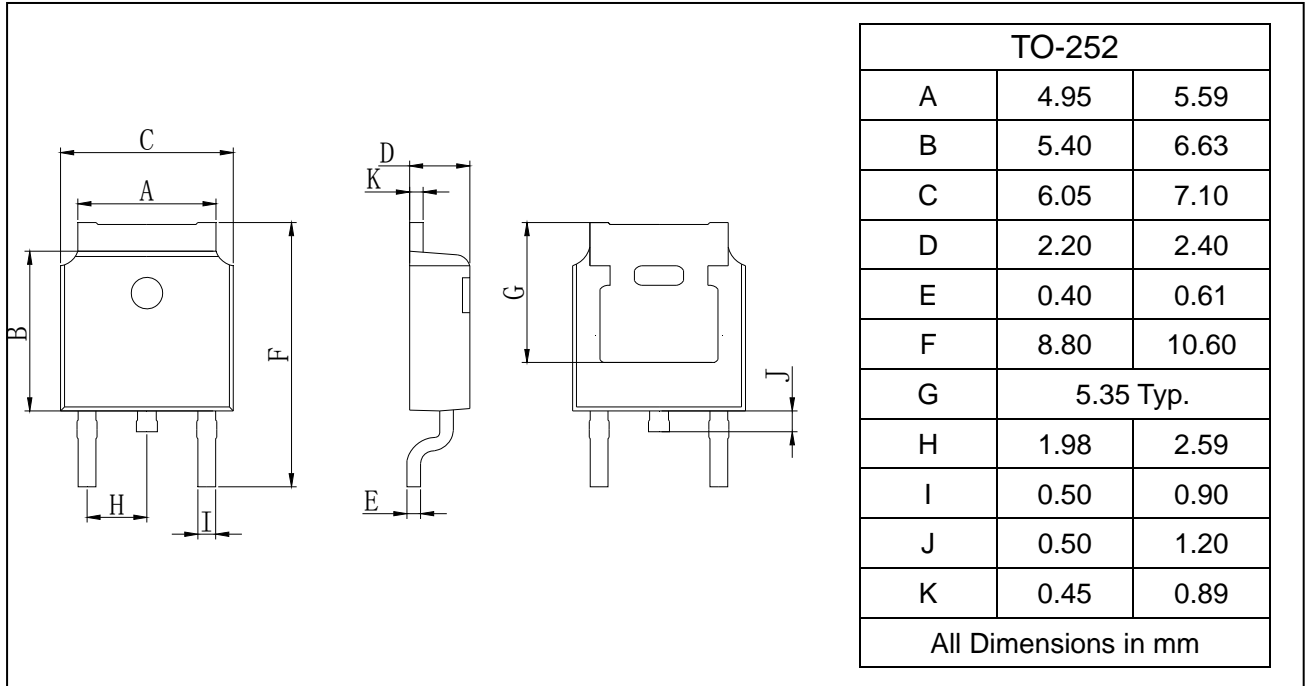
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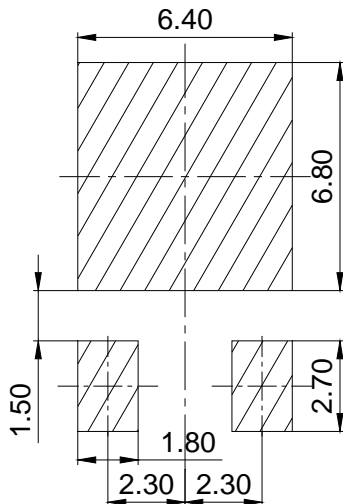
PACKAGE OUTLINE

Plastic surface mounted package

TO-252



SOLDERING FOOTPRINT



Unit :mm

PACKAGE INFORMATION

Device	Package	Shipping
2SB1182	TO-252	80PCS/Tube
		2500PCS/Tape&Reel