Medium Power Transistor 2SB1240

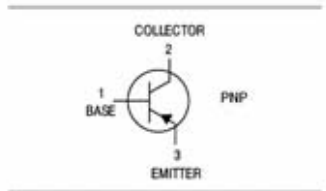
FEATURES

- Low $V_{CE(sat)}$.
  $V_{CE(sat)}$=-0.5V(Typ)(I_C/I_B=-2A/-0.2A)
- Complements the 2SD1862.

Lead-free

APPLICATIONS

- Epitaxial planar type.
- PNP silicon transistor.



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MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Volage	-40	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-2	A
I_{CP}	Collector Power Dissipation	-3	A
P_C	Collector Power Dissipation	1.0	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	-40			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=-1mA,I_B=0	-32			V
Emitter-base breakdown voltage	V_{EBO}	I_E=-50uA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-20V,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=-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	P	Q	R
Range	82-180	120-270	180-390

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

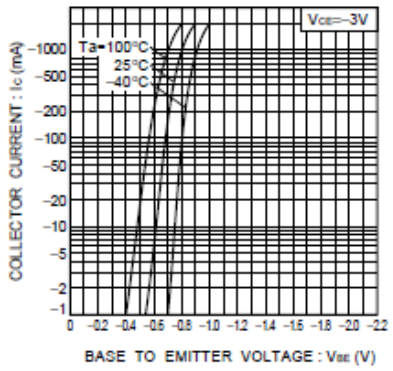

Fig.1 Grounded emitter propagation characteristics

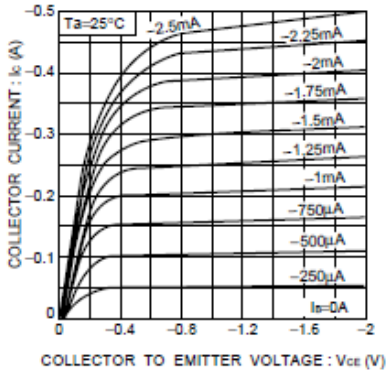

Fig.2 Grounded emitter output characteristics

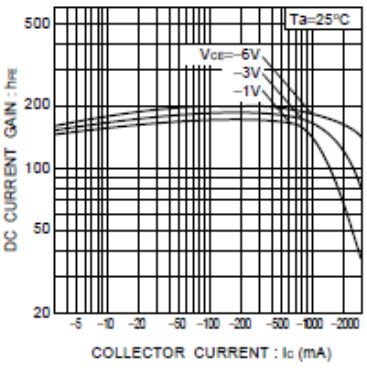

Fig.3 DC current gain vs. collector current (I)

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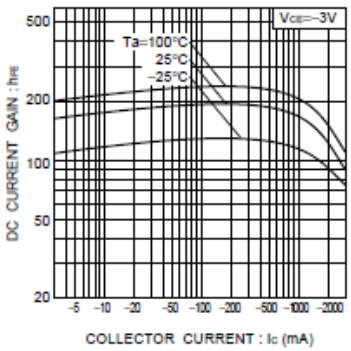

Fig.4 DC current gain vs. collector current (II)

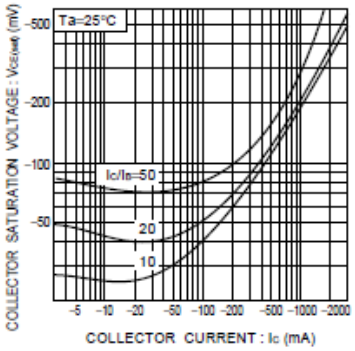

Fig.5 Collector-emitter saturation voltage vs. collector current (I)

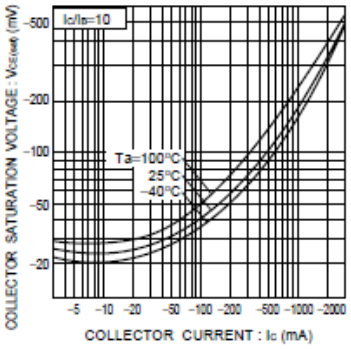

Fig.6 Collector-emitter saturation voltage vs. collector current (II)

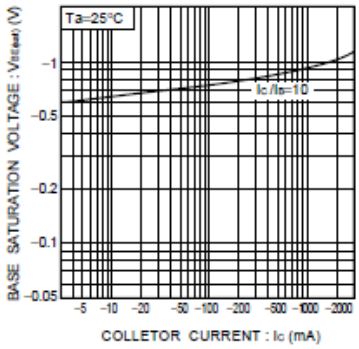

Fig.7 Base-emitter saturation voltage vs. collector current

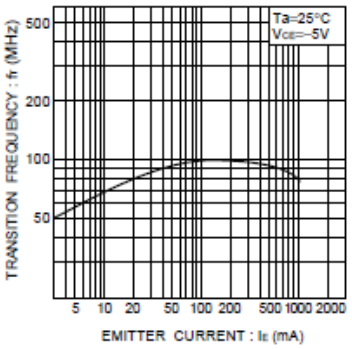

Fig.8 Gain bandwidth product vs. emitter current

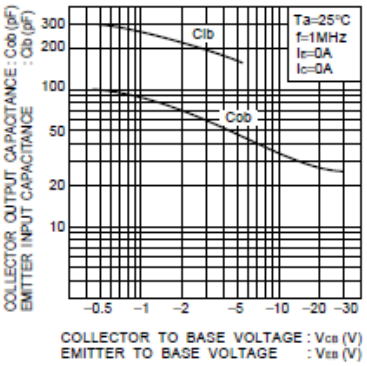

Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

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PACKAGE OUTLINE

Plastic surface mounted package

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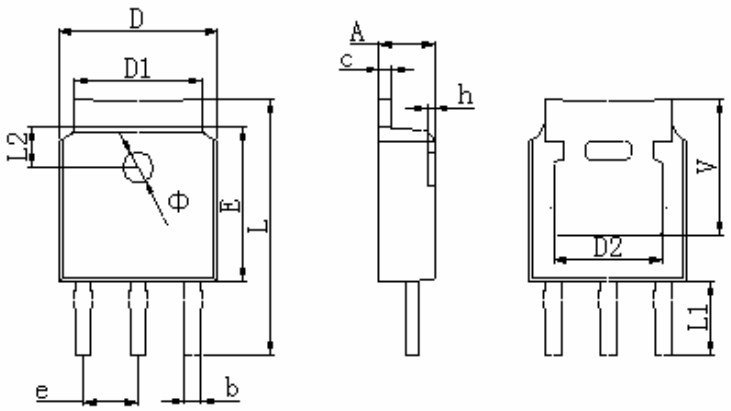

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A	2.200	2.400
b	0.500	0.700
c	0.460	0.580
D	6.500	6.700
D1	5.100	5.460
D2	4.830 Typ.	
E	6.000	6.200
e	2.186	2.386
L	12.000	12.600
L1	5.100 Typ.	
L2	1.400	1.700
Φ	1.100	1.300
h	0.000	0.300
V	5.350 Typ.	
All Dimensions in mm		

PACKAGE INFORMATION

Device	Package	Shipping
2SB1240	TO-251	80PCS/Tube