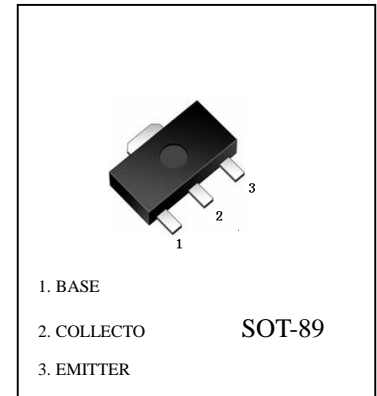


**FEATURES**

- Low  $V_{CE(SAT)} = -0.2V$  (Typ.) ( $I_C/I_B = -2A/-0.1mA$ ).
- Excellent DC current gain characteristics.
- Complementary the 2SD2150.

**2SB1424 (PNP)**

**Maximum Ratings (Ta=25 °C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	-20	V
Collector-Emitter Voltage	$V_{CEO}$	-20	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current -Continuous	$I_C$	-3	A
Collector Power dissipation	PC	0.5	W
Storage Temperature	$T_{stg}$	-55to +150	°C

**ELECTRICAL CHARACTERISTICS ( @ Ta=25 °C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C = -50\mu A$ $I_E = 0$	-20			V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C = -1mA$ $I_B = 0$	-20			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E = -50\mu A$ $I_C = 0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -20V$ $I_E = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V$ , $I_C = 0$			-0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -2V$ $I_C = -100\mu A$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A$ $I_B = -0.1A$			-0.5	V
Transition frequency	$f_T$	$V_{CE} = -2V$ , $I_C = -0.5A$ ,		240		MHz
Output Capacitance	$C_{obo}$	$V_{CB} = -10V$ $f = 1MHz$ $I_E = 0$	-	35		pF

**CLASSIFICATION OF  $h_{FE}$** 

Rank	Q	R
Range	120-270	180-390
Marking	AEQ	AER

**2SB1424** Typical Characteristics

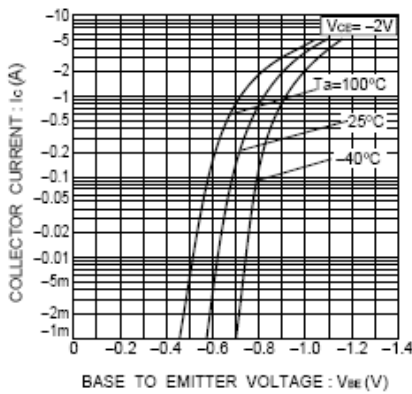


Fig.1 Grounded emitter propagation characteristics

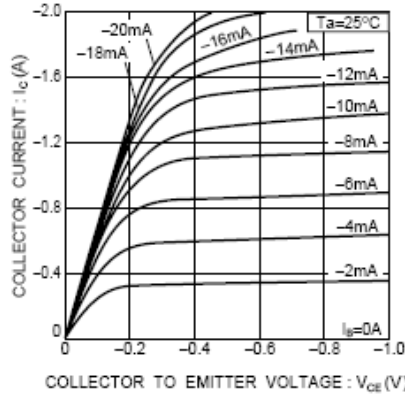


Fig.2 Grounded emitter output characteristics (I)

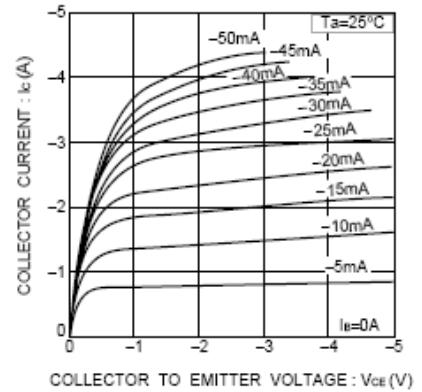


Fig.3 Grounded emitter output characteristics (II)

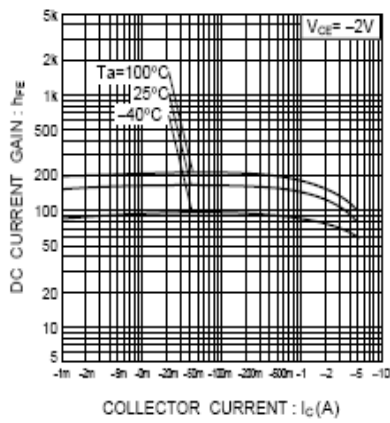


Fig.4 DC current gain vs. collector current

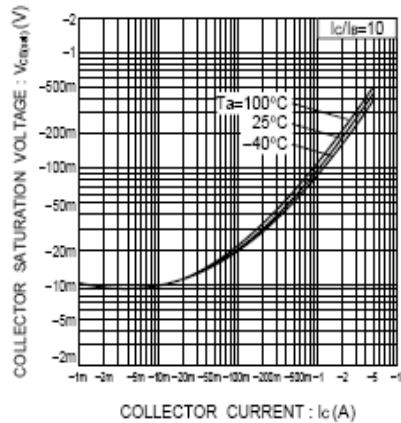


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

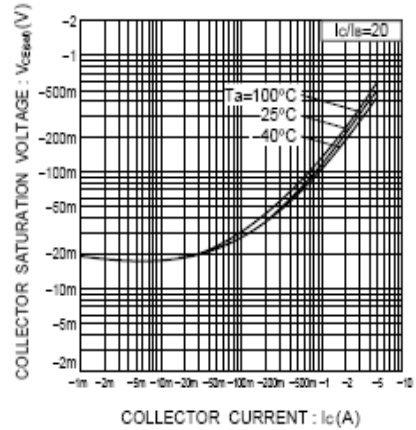


Fig.6 Collector-emitter saturation voltage vs. collector current (II)

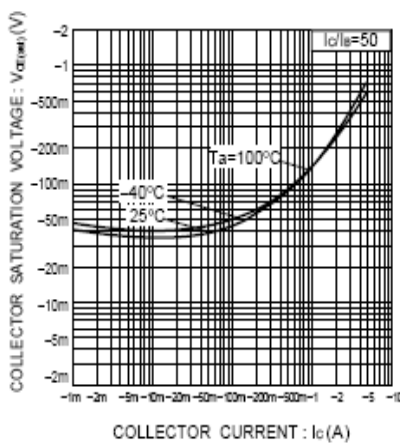


Fig.7 Collector-emitter saturation voltage vs. collector current (III)

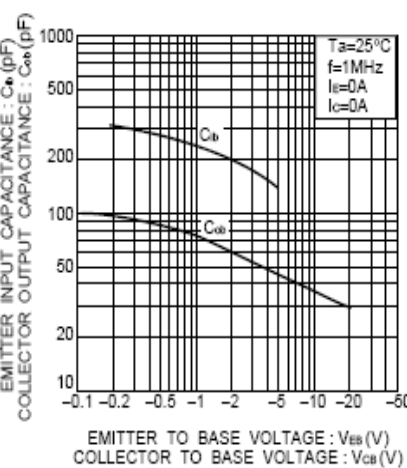


Fig.8 Gain bandwidth product vs. emitter current  
Collector output capacitance vs. collector-base voltage

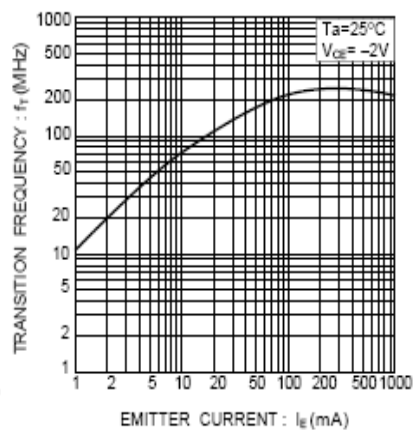


Fig.9 Emitter input capacitance vs. emitter base voltage