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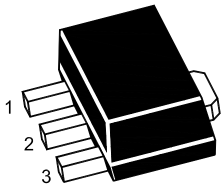
ST 2SB1132U

PNP SILICON EPITAXIAL MEDIUM POWER TRANSISTOR



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	32	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current - DC Collector Current - Pulse [1]	$-I_C$ $-I_{CP}$	1 2	A A
Total Power Dissipation	P_{tot}	0.5 2 [2]	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

[1] Single pulse, PW = 100 ms.
[2] When mounted on a 40 X 40 X 0.7 mm ceramic board.

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 3 V, $-I_C$ = 100 mA Current Gain Group P	h_{FE}	82	-	180	-
Q	h_{FE}	120	-	270	-
R	h_{FE}	180	-	390	-
Collector Base Breakdown Voltage at $-I_C$ = 50 µA	$-V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA	$-V_{(BR)CEO}$	32	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 50 µA	$-V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $-V_{CB}$ = 20 V	$-I_{CBO}$	-	-	0.5	µA
Emitter Cutoff Current at $-V_{EB}$ = 4 V	$-I_{EBO}$	-	-	0.5	µA
Collector Emitter Saturation Voltage at $-I_C$ = 500 mA, $-I_B$ = 50 mA	$-V_{CE(sat)}$	-	-	0.5	V
Transition Frequency at I_E = 50 mA, $-V_{CE}$ = 5 V, f = 30 MHz	f_T	-	150	-	MHz
Output Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz	C_{ob}	-	-	30	pF

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Dated : 30/05/2006

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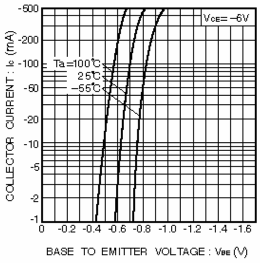

Fig.1 Grounded emitter propagation characteristics

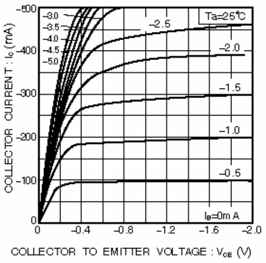

Fig.2 Grounded emitter output characteristics

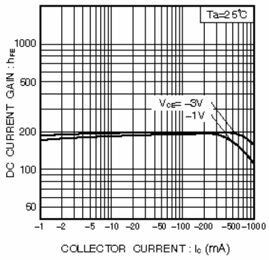

Fig.3 DC current gain vs. collector current(I)

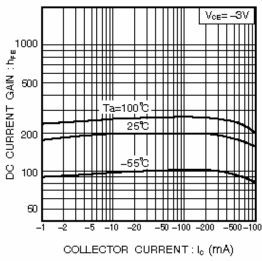

Fig.4 DC current gain vs. collector current(II)

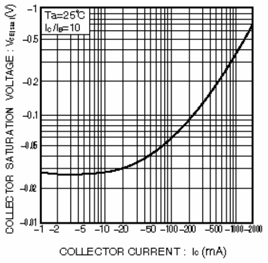

Fig.5 Collector-emitter saturation voltage vs. collector current

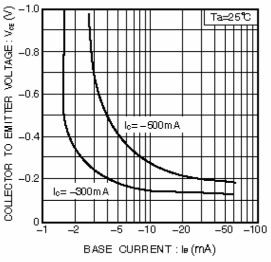

Fig.6 Collector-emitter saturation voltage vs. base current

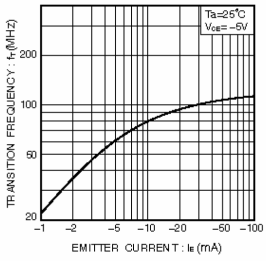

Fig.7 Gain bandwidth product vs. emitter current

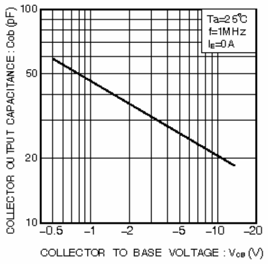

Fig.8 Collector output capacitance vs.collector-base voltage

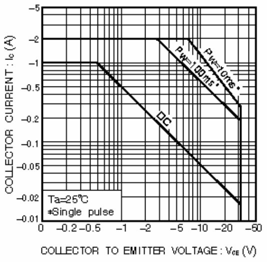

Fig.9 Safe operation area

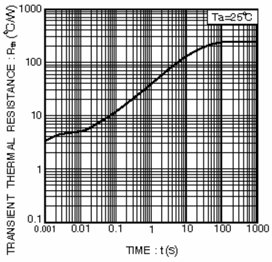

Fig.10 Transient thermal resistance

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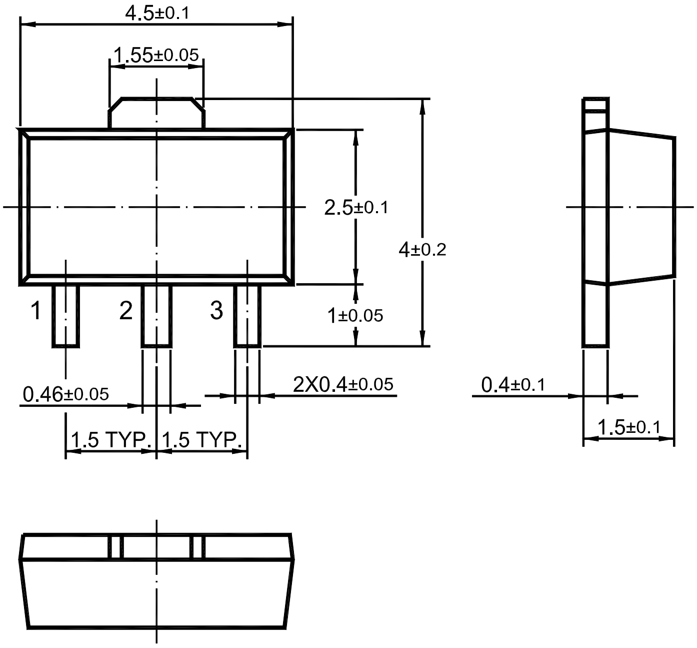
SOT-89 PACKAGE OUTLINE



Dimensions in mm