迈拓电子
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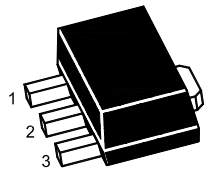
2SB1386U **Silicon Epitaxial Planar Transistor**

Low frequency transistor



1.Base 2.Collector 3.Emitter

SOT-89-3L

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	20	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current - DC Collector Current - Pulse [1)]	$-I_C$ $-I_{CP}$	5 10	A
Collector Power Dissipation	P_C	0.5 2 [2)]	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

[1)] Single pulse, P_W = 10 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 $-V_{CE}$ = 2 V, $-I_C$ = 500 mA	Current Gain Group	P Q R	h_{FE} h_{FE} h_{FE}	82 120 180	- - -	180 270 390	- - -
Collector Base Cutoff Current at $-V_{CB}$ = 20 V			$-I_{CBO}$	-	-	500	nA
Emitter Base Cutoff Current at $-V_{EB}$ = 5 V			$-I_{EBO}$	-	-	500	nA
Collector Base Breakdown Voltage at $-I_C$ = 50 µA			$-V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA			$-V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 50 µA			$-V_{(BR)EBO}$	6	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 4 A, $-I_B$ = 100 mA			$-V_{CE(sat)}$	-	-	1	V
Transition Frequency at $-V_{CE}$ = 6 V, I_E = 50 mA, f = 100 MHz			f_T	-	120	-	MHz
Output Capacitance at $-V_{CB}$ = 20 V, I_E = 0, f = 1 MHz			C_{ob}	-	60	-	pF

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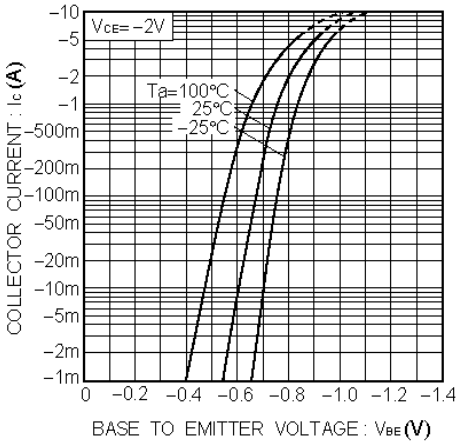

Fig.1 Grounded emitter propagation characteristics

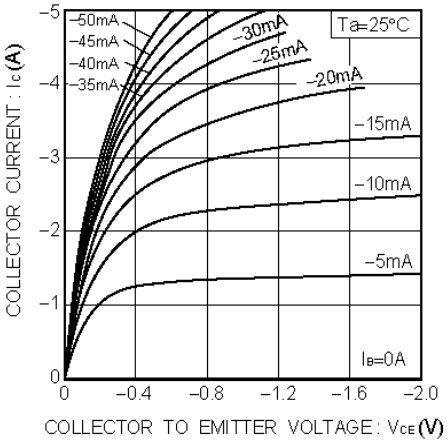

Fig.2 Grounded emitter output characteristics

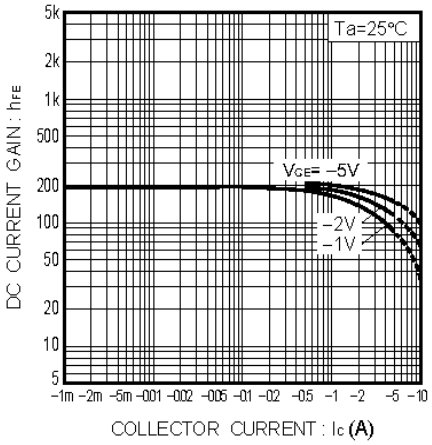

Fig.3 DC current gain vs. collector current (Ⅰ)

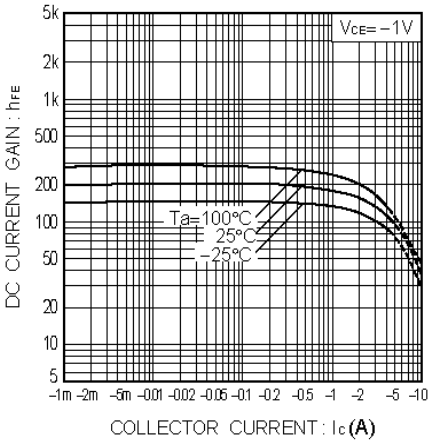

Fig.4 DC current gain vs. collector current (Ⅱ)

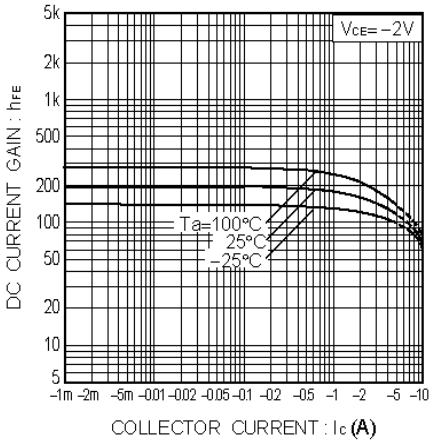

Fig.5 DC current gain vs. collector current (Ⅲ)

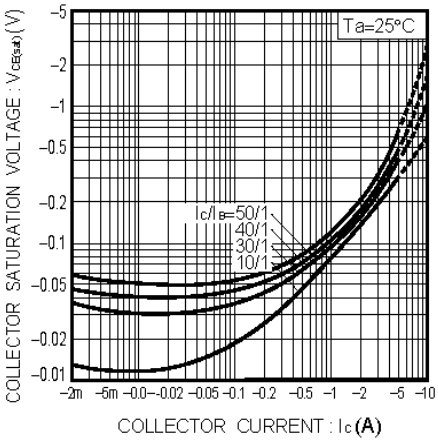

Fig.6 Collector-emitter saturation voltage vs. collector current (Ⅰ)

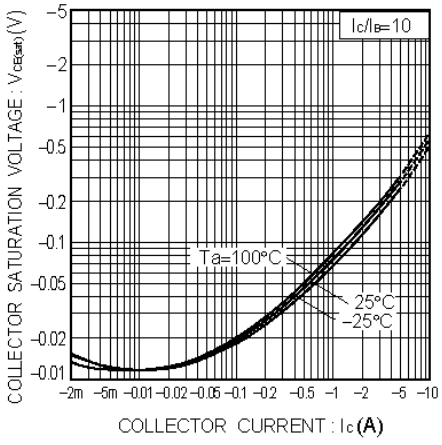

Fig.7 Collector-emitter saturation voltage vs. collector current (Ⅱ)

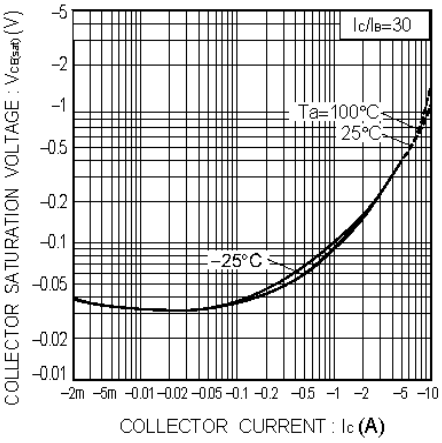

Fig.8 Collector-emitter saturation voltage vs. collector current (Ⅲ)

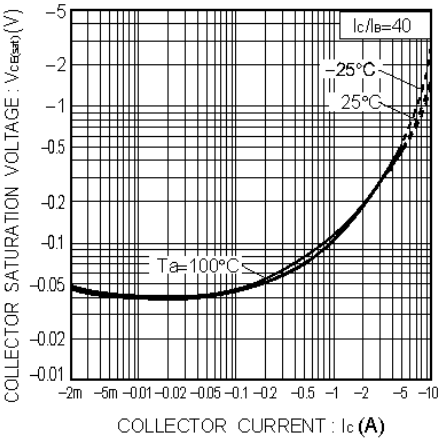

Fig.9 Collector-emitter saturation voltage vs. collector current (Ⅳ)

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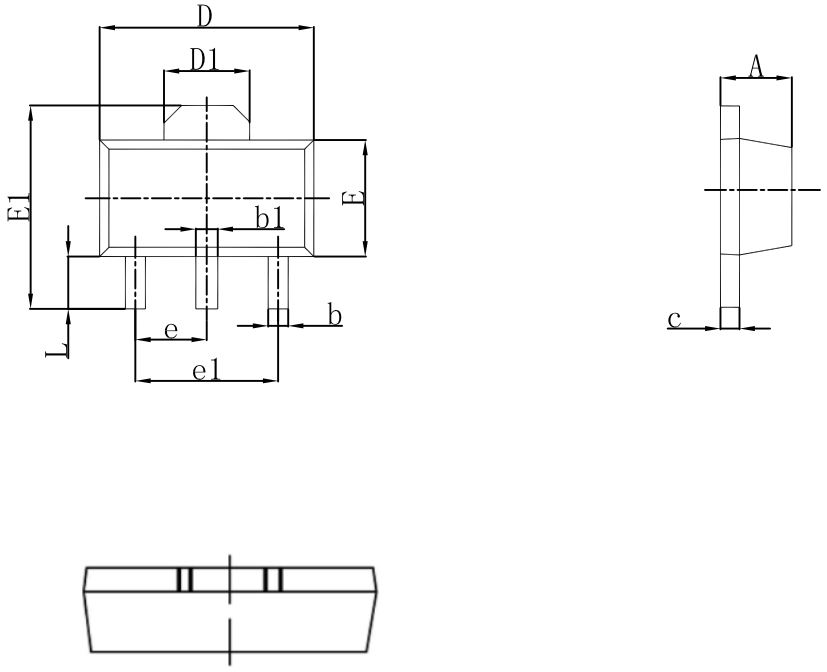
SOT-89-3L Outlines Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047