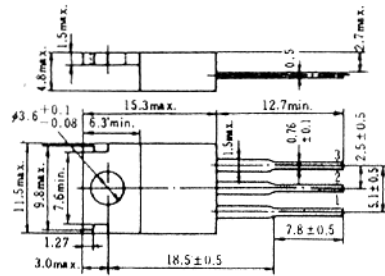


## 2SB856

SILICON PNP TRIPLE DIFFUSED  
LOW FREQUENCY POWER AMPLIFIER



1. Base  
2. Collector  
(Flange)  
3. Emitter  
(Dimensions in mm)

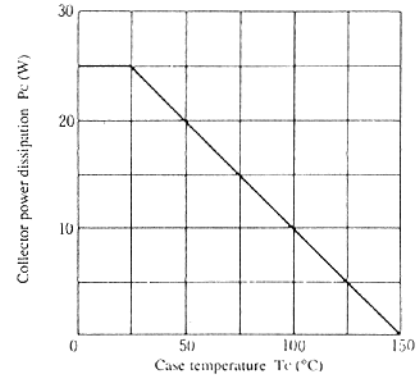
(JEDEC TO-220AB)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB856	Unit
Collector to base voltage	VCBO	-50	V
Collector to emitter voltage	VCEO	-50	V
Emitter to base voltage	VEBO	-4	V
Collector current	IC	-3	A
Collector power dissipation	PC*	25	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-45 to +150	°C

\* Value at Tc = 25°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

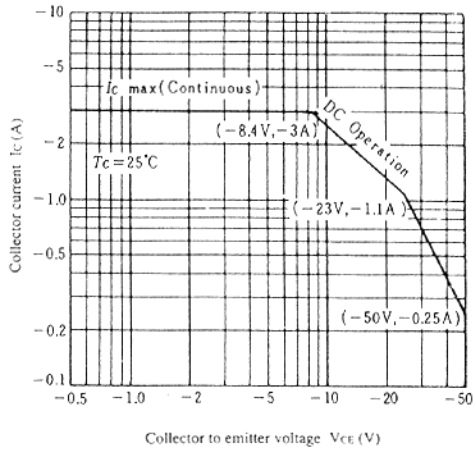
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V(BR)CBO	IC = -5mA, IE = 0	-50	—	—	V
Collector to emitter breakdown voltage	V(BR)CEO	IC = -50mA, RBE = ∞	-50	—	—	V
Emitter to base breakdown voltage	V(BR)EBO	IE = -5mA, IC = 0	-4	—	—	V
Collector cutoff current	ICBO	VCE = -20V, IE = 0	—	—	-100	μA
DC current transfer ratio	hFE1*	VCE = -4V, IC = -1A**	35	—	200	
	hFE2	VCE = -4V, IC = -0.1A**	35	—	—	
Base to emitter voltage	VBE	VCE = -4V, IC = -1A**	—	—	-1.5	V
Collector to emitter saturation voltage	VCE(sat)	IC = -2A, IB = -0.2A**	—	—	-1.2	V
Gain bandwidth product	ft	VCE = -4V, IC = -0.5A**	—	35	—	MHz

\* The 2SB856 is grouped by hFE1 as follows.

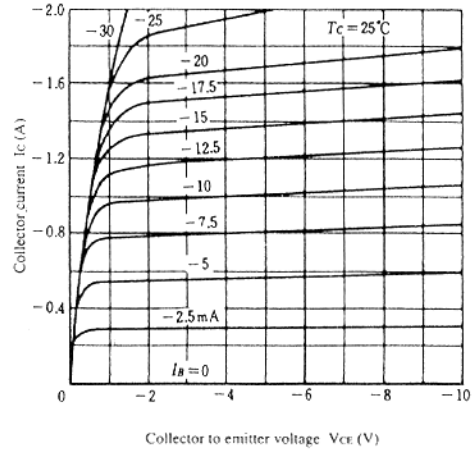
\*\* Pulse Test

A	B	C
35 to 70	60 to 120	100 to 200

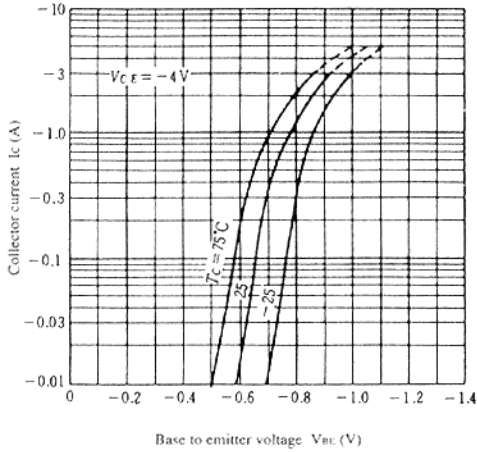
AREA OF SAFE OPERATION



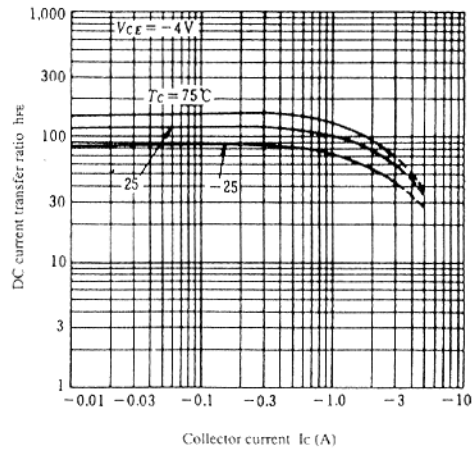
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT

