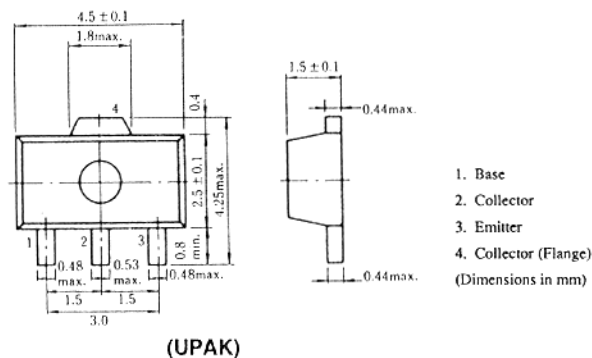


2SB1027

SILICON PNP EPITAXIAL
LOW FREQUENCY AMPLIFIER



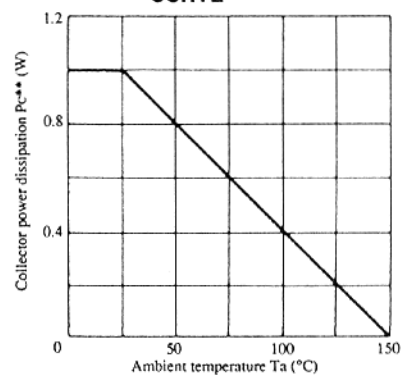
■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB1027	Unit
Collector to base voltage	V _{CB0}	-180	V
Collector to emitter voltage	V _{CEO}	-120	V
Emitter to base voltage	V _{EBO}	-5	V
Collector current	I _C	-1.5	A
Collector peak current	i _{C(peak)} *	-3	A
Collector power dissipation	P _{C**}	1	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10ms, Duty cycle ≤ 20%

** Value on the alumina ceramic board (12.5 × 20 × 0.7mm)

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

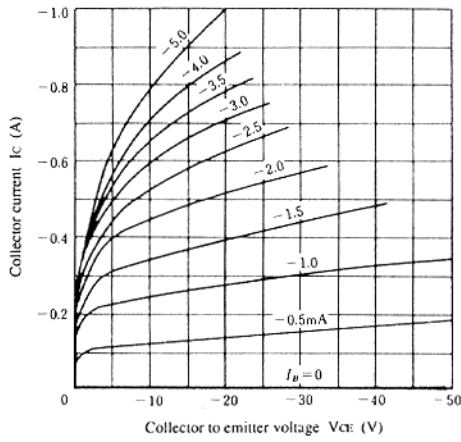
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V _{(BR)CBO}	I _C = -1mA, I _E = 0	-180	—	—	V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _C = -10mA, R _{BE} = ∞	-120	—	—	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = -1mA, I _C = 0	-5	—	—	V
Collector cutoff current	I _{CBO}	V _{CB} = -160V, I _E = 0	—	—	-10	μA
DC current transfer ratio	h _{FE1} *	V _{CE} = -5V, I _C = -0.15A, pulse	60	—	320	
	h _{FE2}	V _{CE} = -5V, I _C = -0.5A, pulse	30	—	—	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -0.5A, I _B = -50mA, pulse	—	—	-1.0	V
Base to emitter voltage	V _{BE}	V _{CE} = -5V, I _C = -0.15A, pulse	—	—	-0.9	V

* The 2SB1027 is grouped by h_{FE1} as follows.

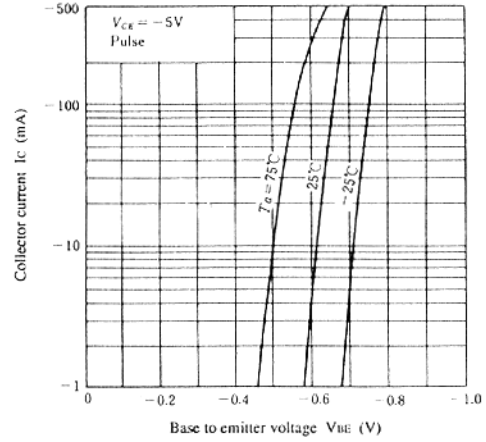
Mark	EH	EJ	EK
h _{FE1}	60 to 120	100 to 200	160 to 320

2SB1027

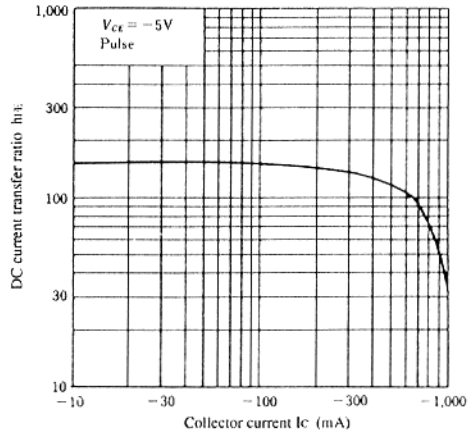
TYPICAL OUTPUT CHARACTERISTICS



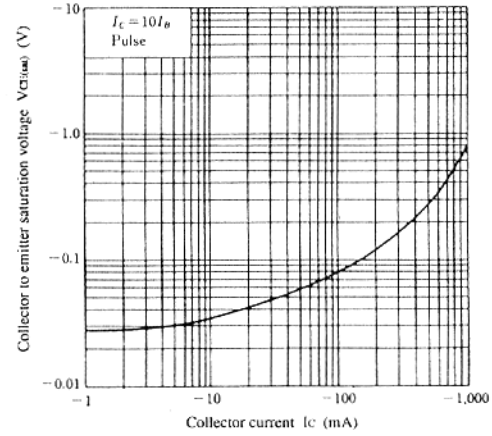
TYPICAL TRANSFER CHARACTERISTICS



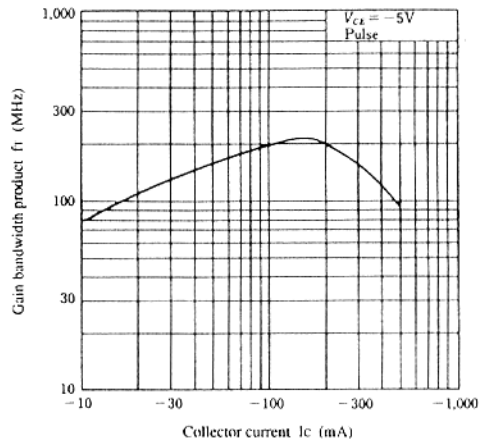
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE

