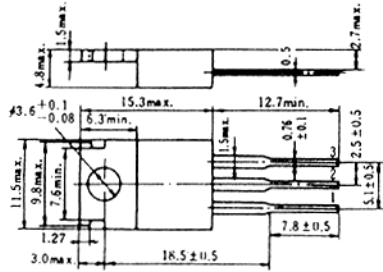


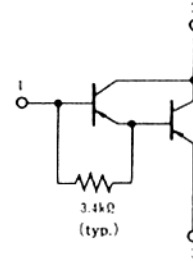
2SB1078 (K)

SILICON PNP EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER
COMPLEMENTARY PAIR WITH 2SD1377 (K)



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



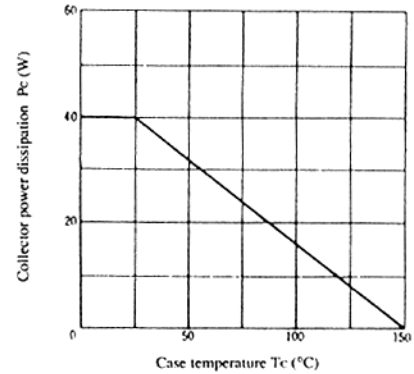
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB1078 (K)	Unit
Collector to base voltage	V _{CB0}	-120	V
Collector to emitter voltage	V _{CE0}	-120	V
Emitter to base voltage	V _{EBO}	-7	V
Collector current	I _C	-8	A
Collector peak current	i _{C(peak)}	-12	A
Collector power dissipation	P _C *	40	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* Value at T_C = 25°C

MAXIMUM COLLECTOR DISSIPATION CURVE

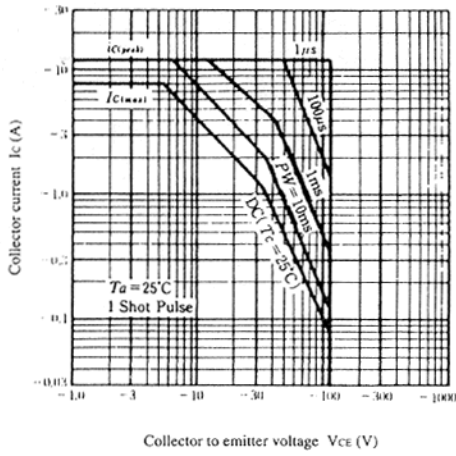


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

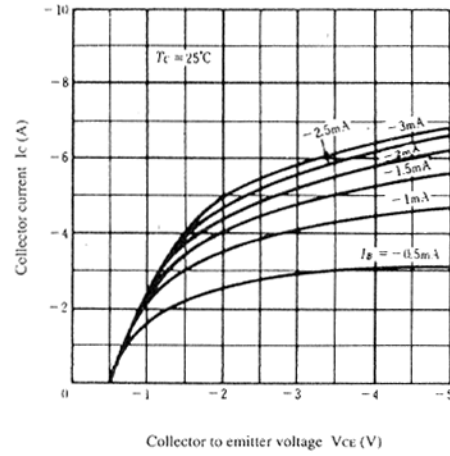
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _C = -25mA, R _{BE} = ∞	-120	—	—	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = -50mA, I _C = 0	-7	—	—	V
Collector cutoff current	I _{CBO}	V _{CB} = -120V, I _E = 0	—	—	-100	μA
	I _{CEO}	V _{CE} = -100V, R _{BE} = ∞	—	—	-10	μA
DC current transfer ratio	h _{FE}	V _{CE} = -3V, I _C = -4A*	1000	—	20000	
Collector to emitter saturation voltage	V _{CE(sat)1}	I _C = -4A, I _B = -8mA*	—	—	-1.5	V
	V _{CE(sat)2}	I _C = -8A, I _B = -80mA*	—	—	-3.0	V
Base to emitter saturation voltage	V _{BE(sat)1}	I _C = -4A, I _B = -8mA*	—	—	-2.0	V
	V _{BE(sat)2}	I _C = -8A, I _B = -80mA*	—	—	-3.5	V
Turn on time	t _{on}	I _C = -4A, I _{B1} = -I _{B2} = -8mA	—	1.5	—	μs
Storage time	t _{stg}		—	2.0	—	μs
Fall time	t _f		—	0.5	—	μs

* Pulse Test.

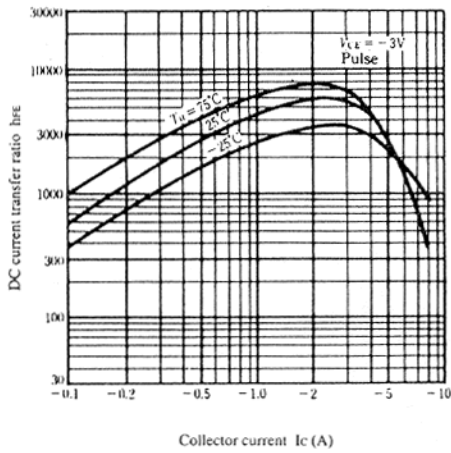
AREA OF SAFE OPERATION



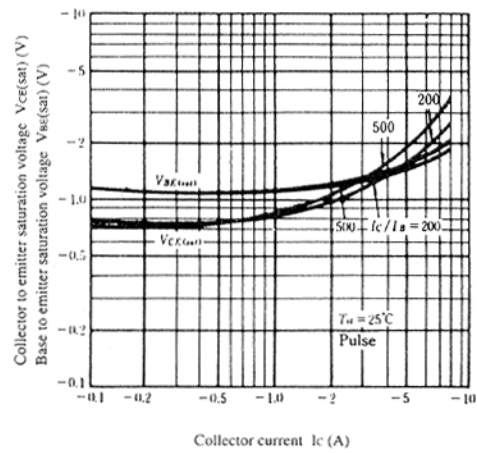
TYPICAL OUTPUT CHARACTERISTICS



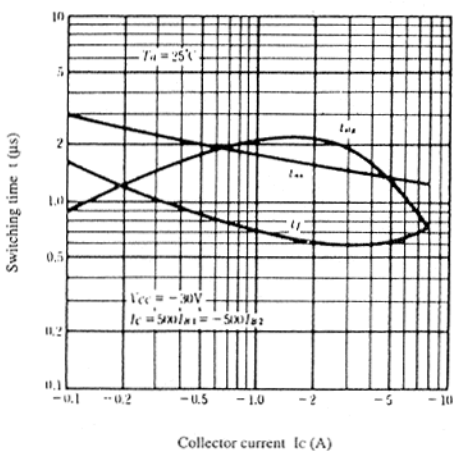
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



SATURATION VOLTAGE VS. COLLECTOR CURRENT



SWITCHING TIME VS. COLLECTOR CURRENT



TRANSIENT THERMAL RESISTANCE

