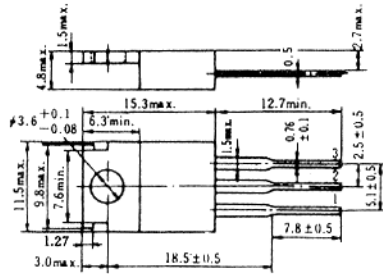


2SD1135

SILICON NPN TRIPLE DIFFUSED
 LOW FREQUENCY POWER AMPLIFIER
 COMPLEMENTARY PAIR WITH 2SB859



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

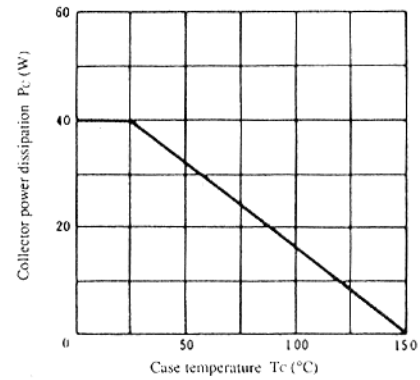
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1135	Unit
Collector to base voltage	V _{CB0}	100	V
Collector to emitter voltage	V _{CEO}	80	V
Emitter to base voltage	V _{EBO}	5	V
Collector current	I _C	4	A
Collector peak current	i _{C(peak)}	8	A
Collector power dissipation	P _C *	40	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-45 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 = 50mA, R _{BE} = ∞	80	—	—	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	5	—	—	V
Collector cutoff current	I _{CBO}	V _{CB} = 80V, I _E = 0	—	—	0.1	mA
DC current transfer ratio	h _{FE1} *	V _{CE} = 5V, I _C = 1A**	60	—	200	
	h _{FE2}	V _{CE} = 5V, I _C = 0.1A**	35	—	—	
Base to emitter voltage	V _{BE}	V _{CE} = 5V, I _C = 1A**	—	—	1.5	V
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 2A, I _B = 0.2A**	—	—	2	V
Gain bandwidth product	f _T	V _{CE} = 5V, I _C = 0.5A**	—	10	—	MHz
Collector output capacitance	C _{ob}	V _{CB} = 20V, I _E = 0, f = 1MHz	—	40	—	pF

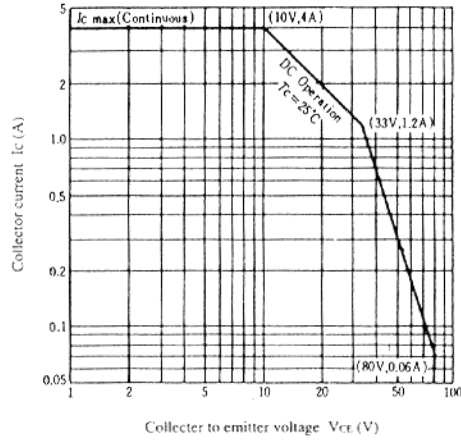
* The 2SD1135 is grouped by h_{FE1} as follows.

** Pulse Test.

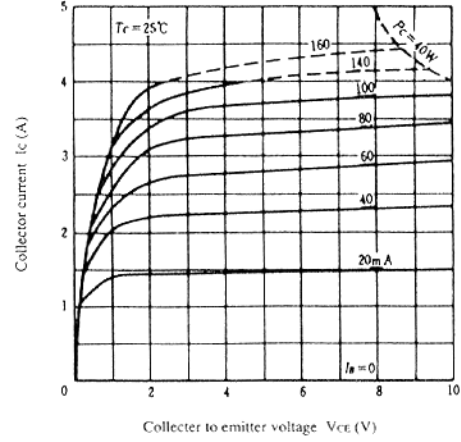
B	C
60 to 120	100 to 200

2SD1135

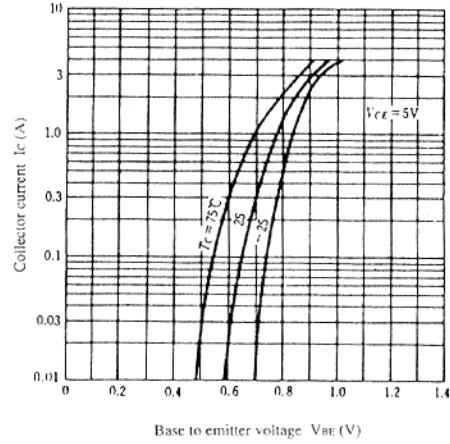
AREA OF SAFE OPERATION



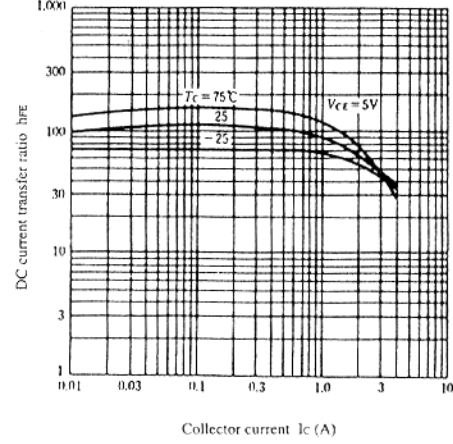
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT

