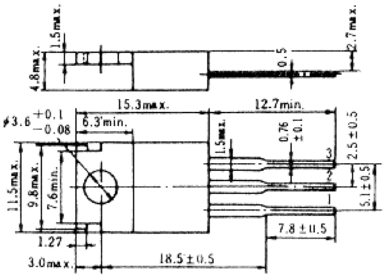
HITACHI

2SD1137

SILICON NPN TRIPLE DIFFUSED

LOW FREQUENCY POWER AMPLIFIER
TV VERTICAL DEFLECTION OUTPUT
COMPLEMENTARY PAIR WITH 2SB860



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

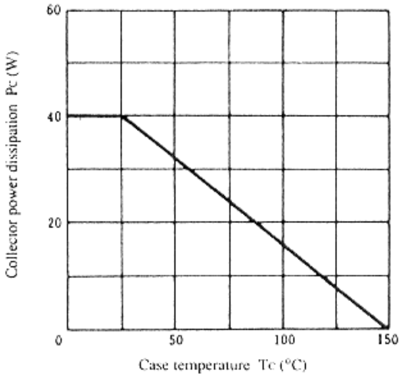
(JEDEC TO-220 AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1137	Unit
Collector to base voltage	V_{CBO}	100	V
Collector to emitter voltage	V_{CEO}	100	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	4	A
Collector peak current	$i_{C(peak)}$	5	A
Collector power dissipation	P_C	1.8	W
	P_C^*	40	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−45 to +150	°C

* Value at Tc = 25°C.

MAXIMUM COLLECTOR DISSIPATION CURVE



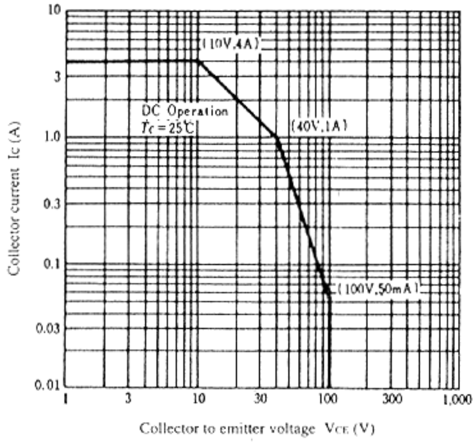
■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition		min.	typ.	max.	Unit
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10mA, R_{BE} = ∞		100	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	I_E = 1mA, I_C = 0		4	—	—	V
Collector cutoff current	I_{CEO}	V_{CE} = 80V, R_{BE} = ∞		—	—	100	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 3.5V, I_C = 0		—	—	50	μA
DC current transfer ratio	h_{FE}	V_{CE} = 4V	I_C = 0.5A*	50	—	250	
			I_C = 50mA	25	—	350	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 0.1A		—	—	1.0	V

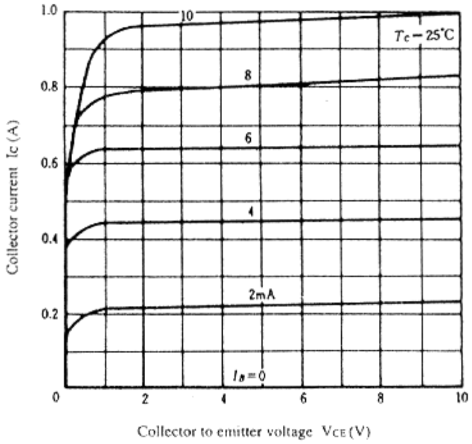
* Pulse Test.

2SD1137

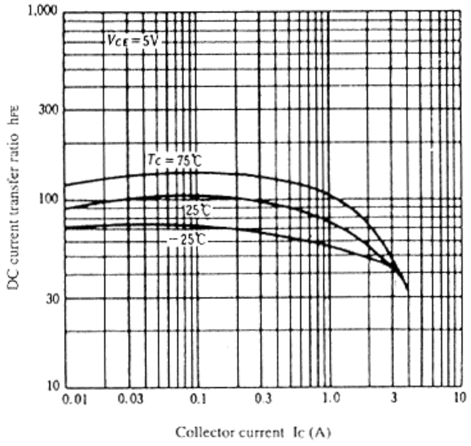
AREA OF SAFE OPERATION



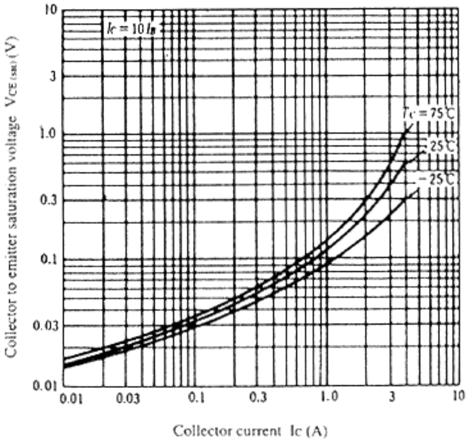
TYPICAL OUTPUT CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT