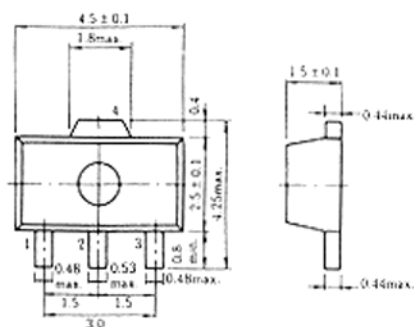
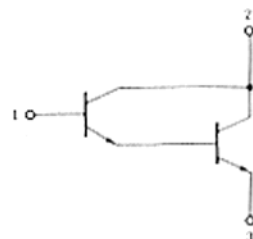


2SD1470

SILICON NPN EPITAXIAL
LOW FREQUENCY POWER AMPLIFIER



(UPAK)



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

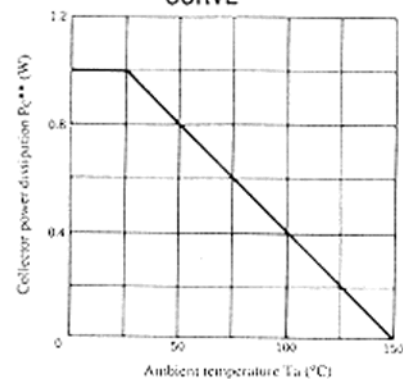
■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1470	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	60	V
Emitter to base voltage	V_{EBO}	7	V
Collector current	I_C	1	A
Collector peak current	$i_{C(peak)}$ *	2	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



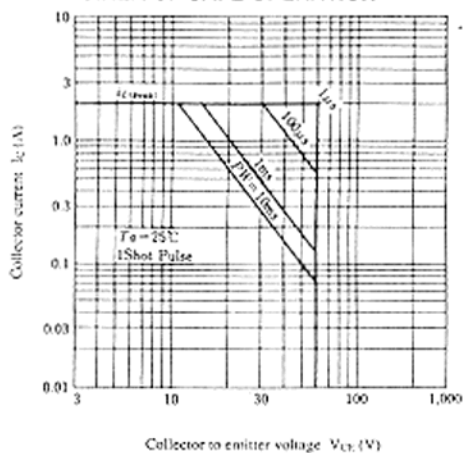
■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	60	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	60	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	7	—	—	V
Collector cutoff current	I_{CBO}	$V_{CB} = 60V, I_E = 0$	—	—	10	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 7V, I_C = 0$	—	—	10	μA
DC current transfer ratio	h_{FE}	$V_{CE} = 3V, I_C = 0.5A^*$	2000	—	100000	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 0.5mA^*$	—	—	1.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 0.5mA^*$	—	—	2.0	V

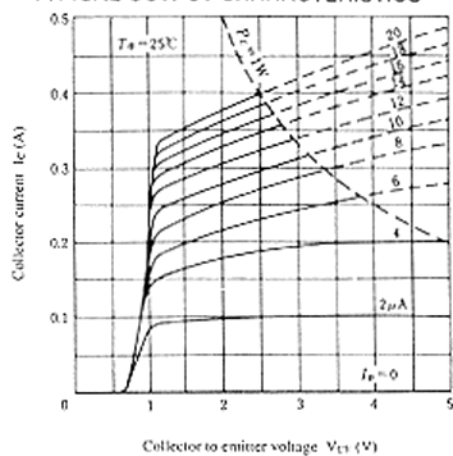
* Pulse Test

** Marking is [AT]

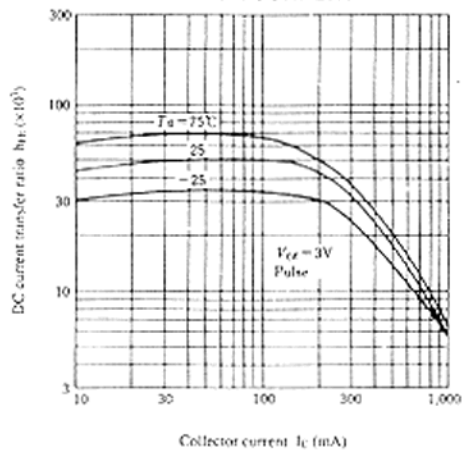
AREA OF SAFE OPERATION



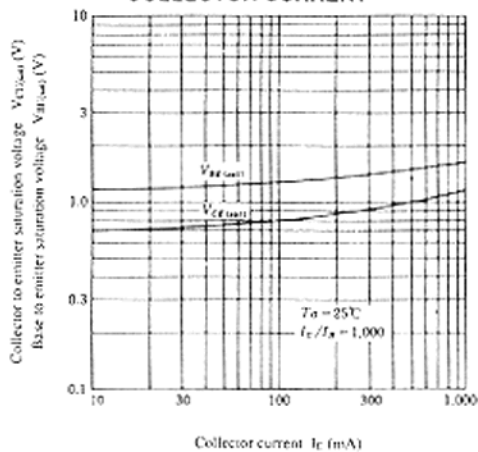
TYPICAL OUTPUT CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



SATURATION VOLTAGE VS. COLLECTOR CURRENT



TRANSIENT THERMAL RESISTANCE

