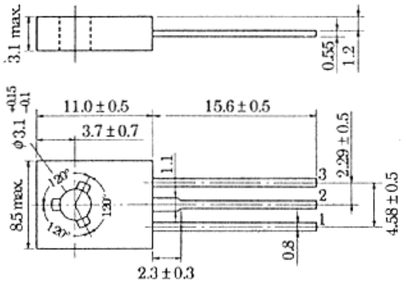
HITACHI

2SC2324Ⓚ

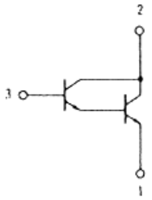
SILICON NPN EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER



1. Emitter
2. Collector
3. Base

(Dimensions in mm)



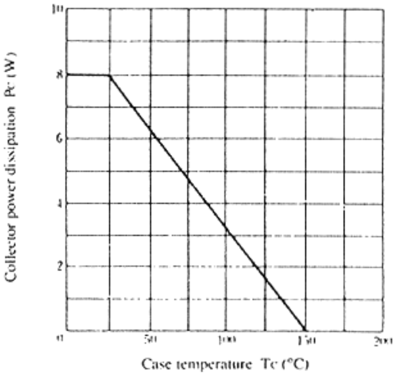
(JEDEC TO-126 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC2324Ⓚ	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	0.8	W
	P_C*	8	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

* Value at Tc = 25°C

MAXIMUM COLLECTOR DISSIPATION CURVE

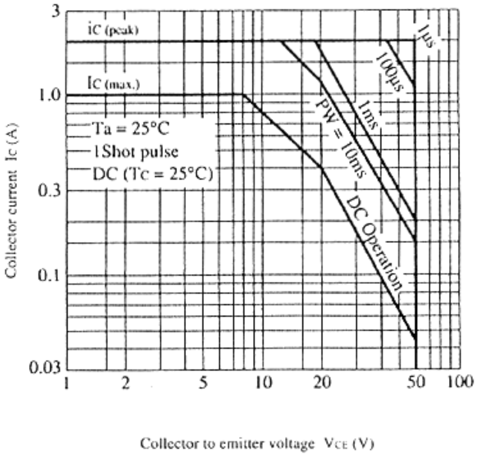


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

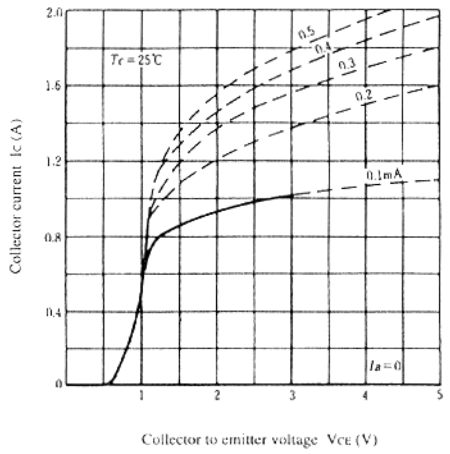
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA, R_{BE} = ∞	60	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	I_E = 0.1mA, I_C = 0	7	—	—	V
Collector cutoff current	I_{CBO}	V_{CB} = 60V, I_E = 0	—	—	10	μA
DC current transfer ratio	h_{FE}	V_{CE} = 10V, I_C = 500mA*	2000	—	—	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 500mA, I_B = 0.5mA*	—	—	1.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$		—	—	2.0	V
Turn on time	t_{on}	V_{CC} = 12V I_C = 250mA, I_{B1} = $-I_{B2}$ = 5mA	—	100	—	ns
Turn off time	t_{off}		—	600	—	ns

* Pulse Test

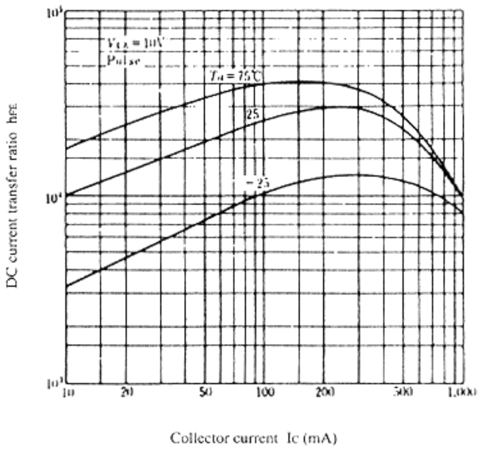
AREA OF SAFE OPERATION



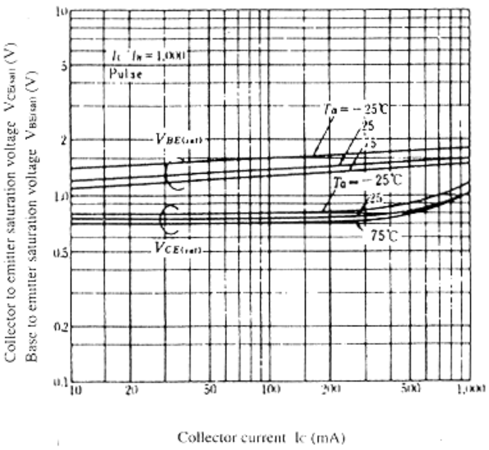
TYPICAL OUTPUT CHARACTERISTICS



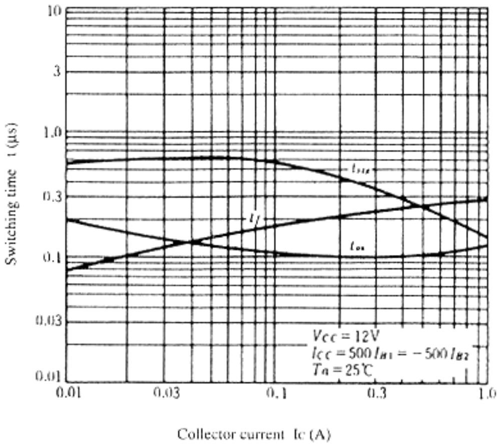
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



SATURATION VOLTAGE VS. COLLECTOR CURRENT



SWITCHING TIME VS. COLLECTOR CURRENT



TRANSIENT THERMAL RESISTANCE