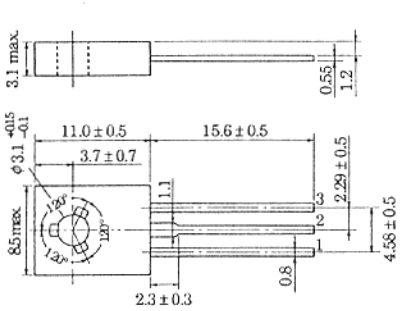
HITACHI

2SC1212, 2SC1212A

SILICON NPN EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER



1. Emitter
2. Collector
3. Base

(Dimensions in mm)

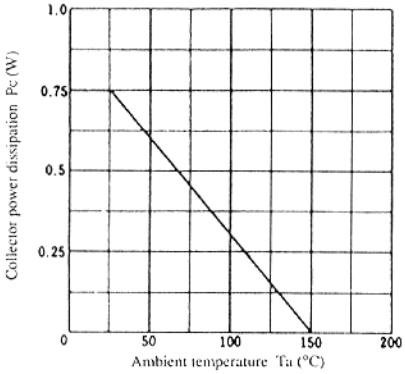
(JEDEC TO-126 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC1212	2SC1212A	Unit
Collector to base voltage	V_{CBO}	50	80	V
Collector to emitter voltage	V_{CEO}	50	80	V
Emitter to base voltage	V_{EBO}	4	4	V
Collector current	I_C	1	1	A
Collector power dissipation	P_C	0.75	0.75	W
	P_C*	8	8	W
Junction temperature	Tj	150	150	°C
Storage temperature	T_{stg}	−55 to +150	−55 to +150	°C

* Value at T_C = 25°C

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

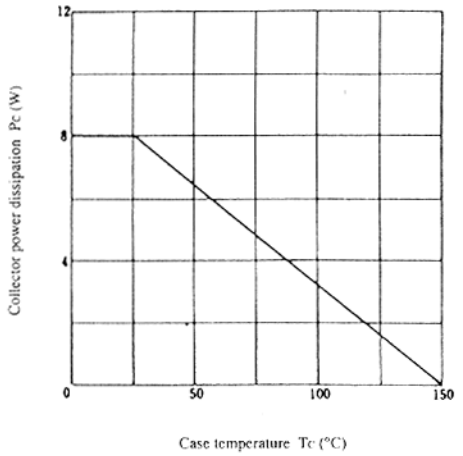
Item	Symbol	Test Condition	2SC1212			2SC1212A			Unit
			min.	typ.	max.	min.	typ.	max.	
Collector to base breakdown voltage	$V_{(BR)CBO}$	I_C = 1mA, I_E = 0	50	—	—	80	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10mA, R_{BE} = ∞	50	—	—	80	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	I_E = 1mA, I_C = 0	4	—	—	4	—	—	V
Collector cutoff current	I_{CBO}	V_{CB} = 50V, I_E = 0	—	—	5	—	—	5	μA
DC current transfer ratio	h_{FE}*	V_{CE} = 4V, I_C = 50mA	60	—	200	60	—	200	
	h_{FE}	V_{CE} = 4V, I_C = 1A (pulse test)	20	—	—	20	—	—	
Base to emitter voltage	V_{BE}	V_{CE} = 4V, I_C = 50mA	—	0.65	1.0	—	0.65	1.0	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 0.1A (pulse test)	—	0.75	1.5	—	0.75	1.5	V
Gain bandwidth product	f_T	V_{CE} = 4V, I_C = 30mA	—	160	—	—	160	—	MHz

* The 2SC1212 and 2SC1212A are grouped by h_{FE} as follows.

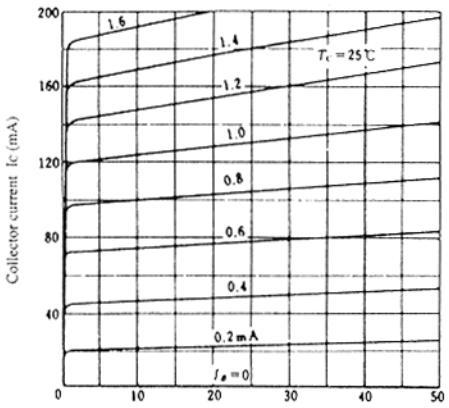
B	C
60 to 120	100 to 200

2SC1212, 2SC1212A

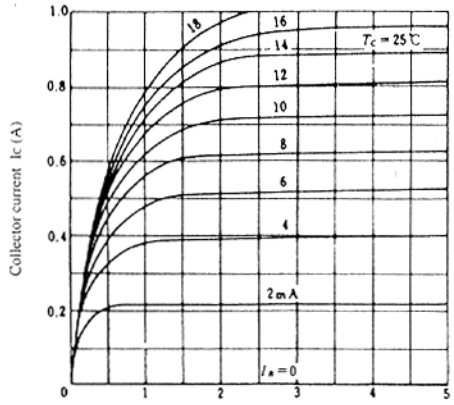
MAXIMUM COLLECTOR DISSIPATION CURVE



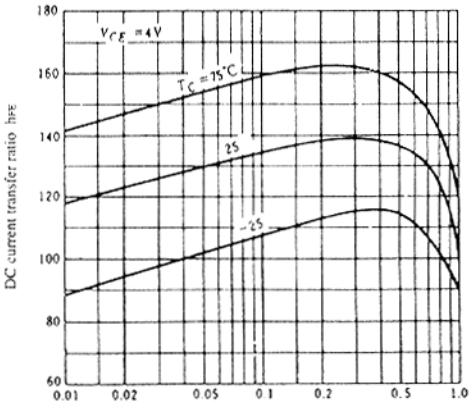
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL OUTPUT CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



TYPICAL TRANSFER CHARACTERISTICS