

# 2SC1212, 2SC1212A

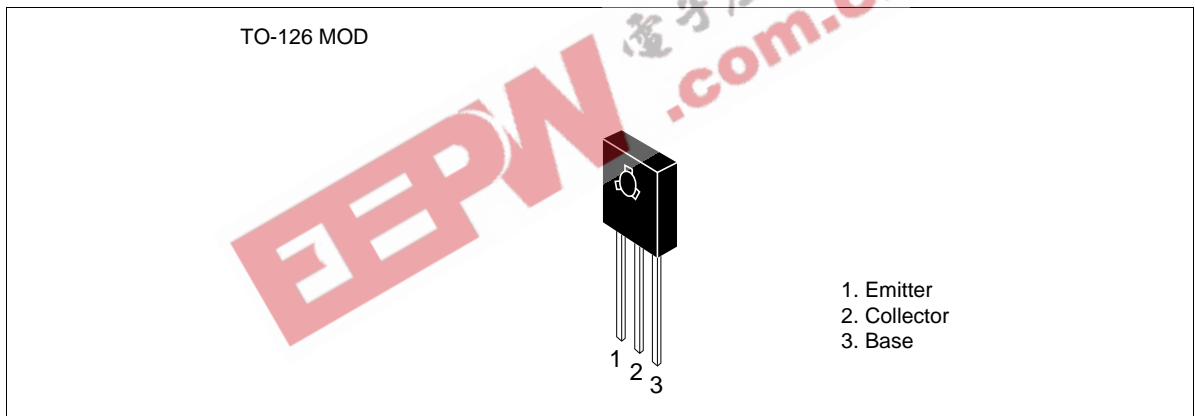
Silicon NPN Epitaxial

# HITACHI

## Application

Low frequency power amplifier

## Outline



## Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Ratings		Unit
		2SC1212	2SC1212A	
Collector to base voltage	$V_{\text{CBO}}$	50	80	V
Collector to emitter voltage	$V_{\text{CEO}}$	50	80	V
Emitter to base voltage	$V_{\text{EBO}}$	4	4	V
Collector current	$I_{\text{C}}$	1	1	A
Collector power dissipation	$P_{\text{C}}$	0.75	0.75	W
	$P_{\text{C}}^{*1}$	8	8	W
Junction temperature	$T_{\text{j}}$	150	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	-55 to +150	$^\circ\text{C}$

Note: 1. Value at  $T_{\text{c}} = 25^\circ\text{C}$

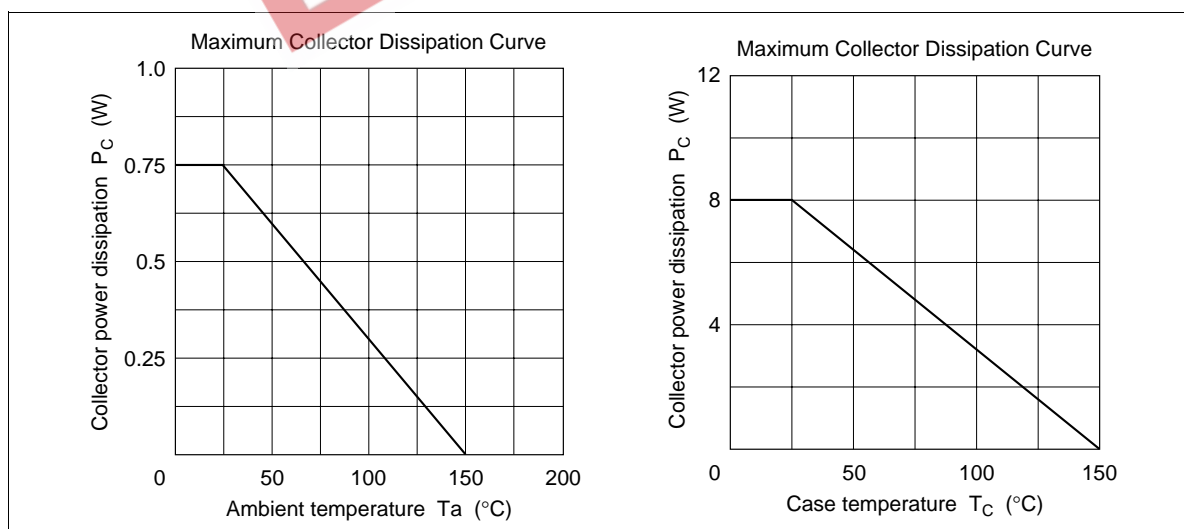
## 2SC1212, 2SC1212A

### Electrical Characteristics (T<sub>a</sub> = 25°C)

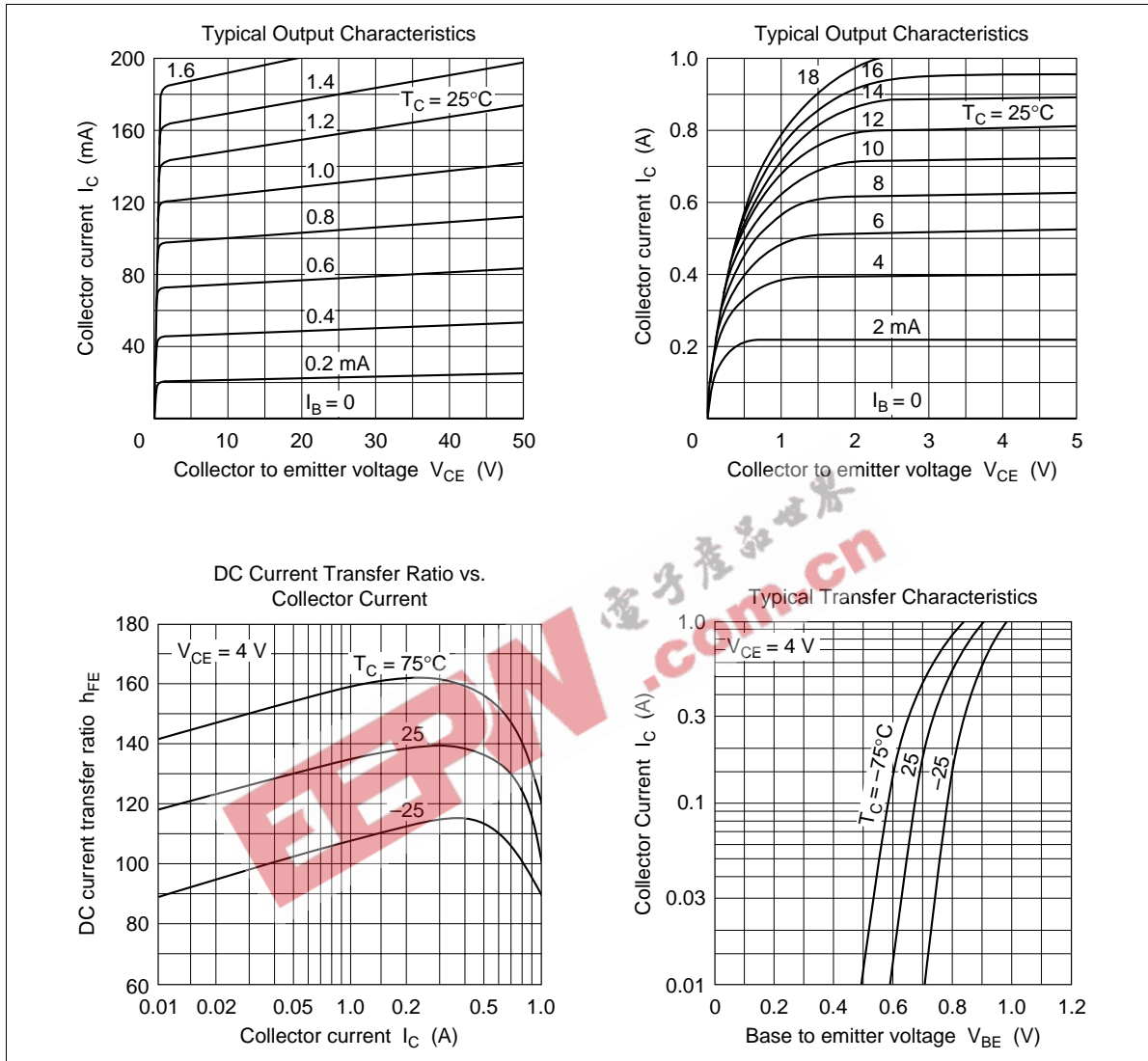
Item	Symbol	2SC1212			2SC1212A			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	50	—	—	80	—	—	V	I <sub>C</sub> = 1 mA, I <sub>E</sub> = 0
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	50	—	—	80	—	—	V	I <sub>C</sub> = 10 mA, R <sub>BE</sub> = ∞
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	4	—	—	4	—	—	V	I <sub>E</sub> = 1 mA, I <sub>C</sub> = 0
Collector cutoff current	I <sub>CBO</sub>	—	—	5	—	—	5	μA	V <sub>CB</sub> = 50 V, I <sub>E</sub> = 0
DC current transfer ratio	h <sub>FE</sub> *1	60	—	200	60	—	200		V <sub>CE</sub> = 4 V, I <sub>C</sub> = 50 mA
	h <sub>FE</sub>	20	—	—	20	—	—		V <sub>CE</sub> = 4 V, I <sub>C</sub> = 1 A (pulse test)
Base to emitter voltage	V <sub>BE</sub>	—	0.65	1.0	—	0.65	1.0	V	V <sub>CE</sub> = 4 V, I <sub>C</sub> = 50 mA
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	0.75	1.5	—	0.75	1.5	V	I <sub>C</sub> = 1 A, I <sub>B</sub> = 0.1 A (pulse test)
Gain bandwidth product	f <sub>T</sub>	—	160	—	—	160	—	MHz	V <sub>CE</sub> = 4 V, I <sub>C</sub> = 30 mA

Note: 1. The 2SC1212 and 2SC1212A are grouped by h<sub>FE</sub> as follows.

B	C
60 to 120	100 to 200

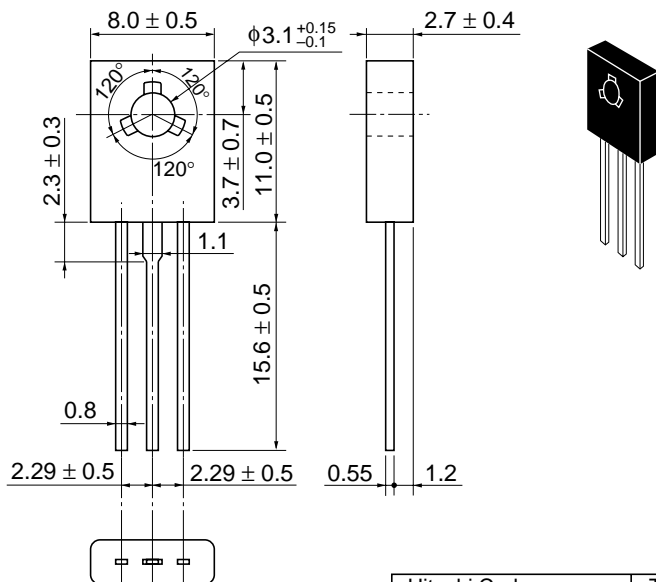


## 2SC1212, 2SC1212A



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Unit: mm



Hitachi Code	TO-126 Mod
JEDEC	—
EIAJ	—
Weight (reference value)	0.67 g

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