

2SA743, 2SA743A

Silicon PNP Epitaxial

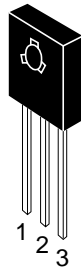
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Application

Low frequency power amplifier complementary pair with 2SC1212 and 2SC1212A

Outline

TO-126 MOD



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings		Unit
		2SA743	2SA743A	
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^{*1}	8	8	
Junction temperature	T_j	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	°C

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

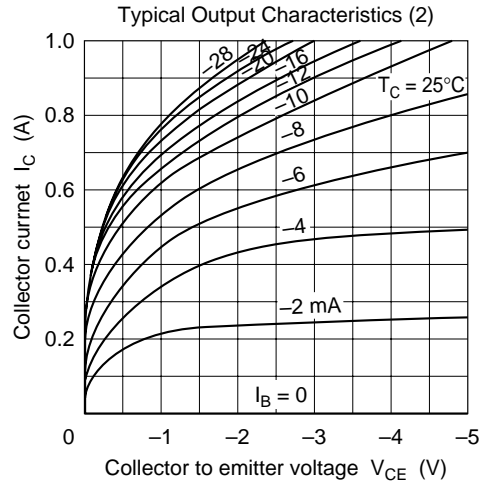
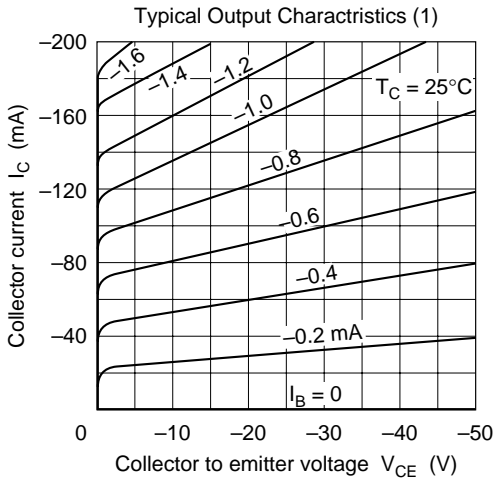
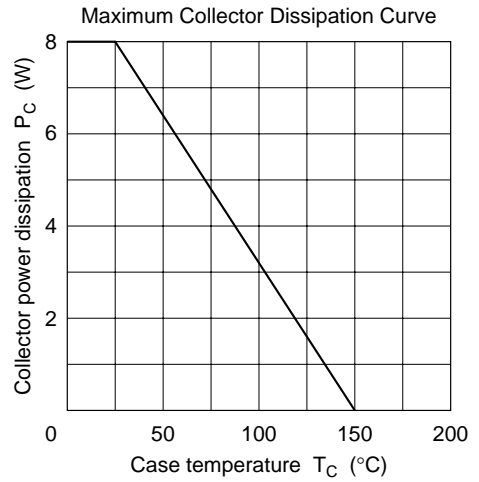
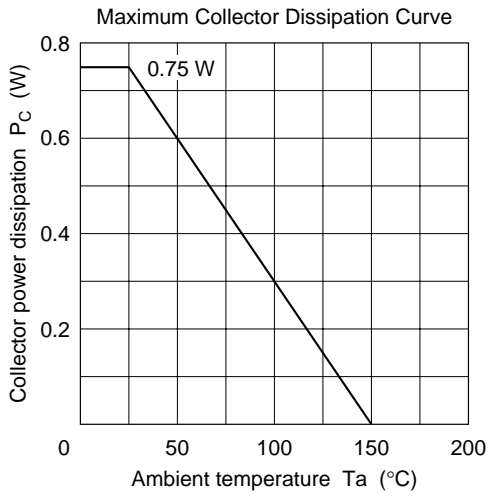
2SA743, 2SA743A

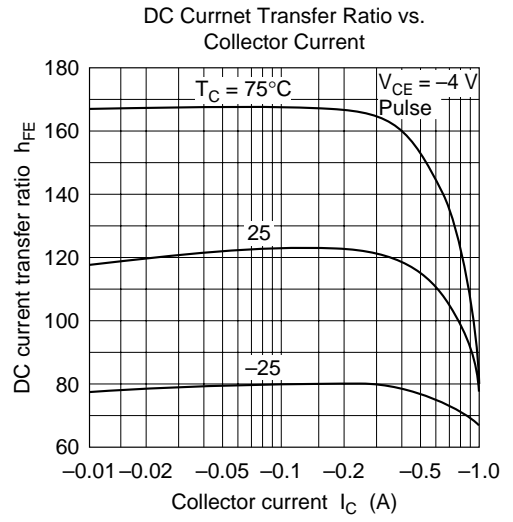
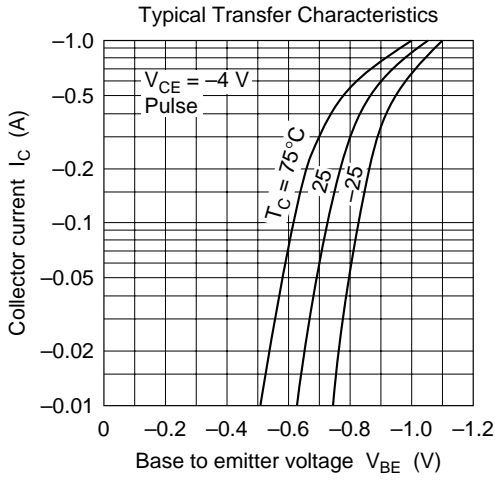
Electrical Characteristics (Ta = 25°C)

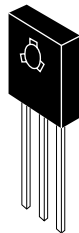
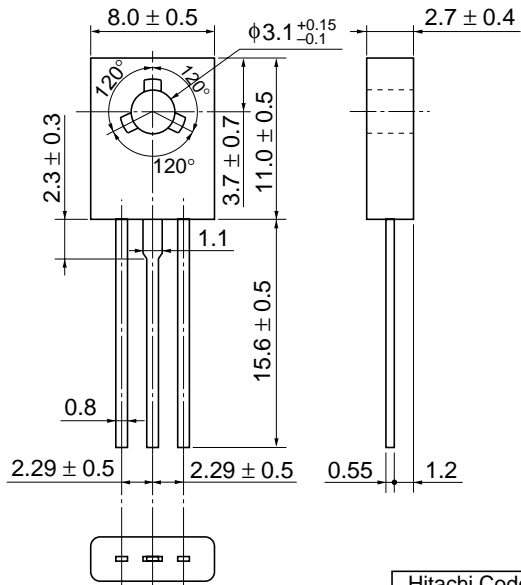
Item	Symbol	2SA743			2SA743A			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	$V_{(BR)CBO}$	-50	—	—	-80	—	—	V	$I_C = -1 \text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-50	—	—	-80	—	—	V	$I_C = -10 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-4	—	—	-4	—	—	V	$I_E = -1 \text{ mA}, I_C = 0$
Collector cutoff current	I_{CER}	—	—	-20	—	—	—	μA	$V_{CE} = -50 \text{ V}, R_{BE} = 1 \text{ k}\Omega$
	I_{CER}	—	—	—	—	—	-20		$V_{CE} = -80 \text{ V}, R_{BE} = 1 \text{ k}\Omega$
DC current transfer ratio	h_{FE}^{*1}	60	120	200	60	120	200		$V_{CE} = -4 \text{ V}, I_C = -50 \text{ mA}$
	h_{FE}	20	—	—	20	—	—		$V_{CE} = -4 \text{ V}, I_C = -1 \text{ A}$ (pulse)
Base to emitter voltage	V_{BE}	—	-0.65	-1.0	—	-0.65	1.0	V	$V_{CE} = -4 \text{ V}, I_C = -50 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	-0.75	-1.5	—	-0.75	-1.5	V	$I_C = -1 \text{ A}, I_B = -0.1 \text{ A}$
Gain bandwidth product	f_T	—	120	—	—	120	—	MHz	$V_{CE} = -4 \text{ V}, I_C = -30 \text{ mA}$

Note: 1. The 2SA743 and 2SA743A is grouped by h_{FE} as follows.

B	C
60 to 120	100 to 200







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

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