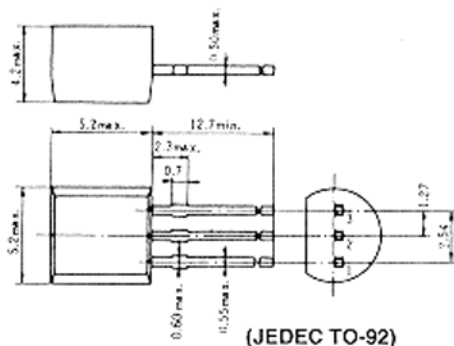


## 2SC2853, 2SC2854

SILICON NPN EPITAXIAL

LOW FREQUENCY AMPLIFIER

Complementary pair with 2SA1188 and 2SA1189

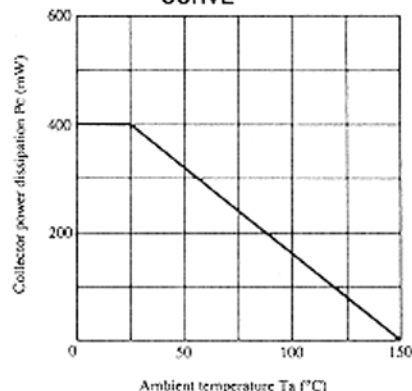


1. Emitter
  2. Collector
  3. Base
- (Dimensions in mm)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC2853	2SC2854	Unit
Collector to base voltage	V <sub>CB0</sub>	90	120	V
Collector to emitter voltage	V <sub>CE0</sub>	90	120	V
Emitter to base voltage	V <sub>EB0</sub>	5	5	V
Collector current	I <sub>C</sub>	100	100	mA
Emitter current	I <sub>E</sub>	-100	-100	mA
Collector power dissipation	P <sub>C</sub>	400	400	mW
Junction temperature	T <sub>J</sub>	150	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	-55 to +150	°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	2SC2853			2SC2854			Unit
			min.	typ.	max.	min.	typ.	max.	
Collector to base breakdown voltage	V <sub>(BR)CB0</sub>	I <sub>C</sub> = 10μA, I <sub>E</sub> = 0	90	—	—	120	—	—	V
Collector to emitter breakdown voltage	V <sub>(BR)CE0</sub>	I <sub>C</sub> = 1mA, R <sub>BE</sub> = ∞	90	—	—	120	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EB0</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> = 0	5	—	—	5	—	—	V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 70V, I <sub>E</sub> = 0	—	—	0.1	—	—	0.1	μA
Emitter cutoff current	I <sub>EB0</sub>	V <sub>CB</sub> = 2V, I <sub>C</sub> = 0	—	—	0.1	—	—	0.1	μA
DC current transfer ratio	h <sub>FE</sub> *	V <sub>CE</sub> = 12V, I <sub>C</sub> = 2mA**	250	—	800	250	—	800	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1mA**	—	0.05	0.10	—	0.05	0.10	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>		—	0.7	1.0	—	0.7	1.0	V
Gain bandwidth product	f <sub>r</sub>	V <sub>CE</sub> = 6V, I <sub>C</sub> = 10mA,	—	310	—	—	310	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz	—	3	—	—	3	—	pF

\* The 2SC2853 and 2SC2854 are grouped by h<sub>FE</sub> as follows.

\*\* Pulse test

D	E
250 to 500	400 to 800

■ See characteristic curves of 2SC2855 and 2SC2856.