



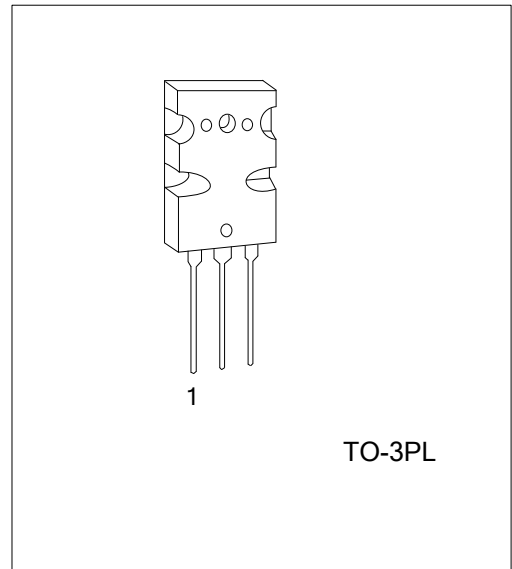
# 2SA1943

## PNP SILICON TRANSISTOR

### POWER AMPLIFIER APPLICATIONS

#### ■ FEATURES

- \* Complementary to UTC **2SC5200**
- \* Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage



#### ■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1943L-x-T3L-T	2SA1943G-x-T3L-T	TO-3PL	B	C	E	Tube

<p>2SA1943L-x-T3L-T</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Rank</li> <li>(4) Lead Free</li> </ul>	<ul style="list-style-type: none"> <li>(1) T: Tube</li> <li>(2) T3L: TO-3PL</li> <li>(3) x: refer to Classification of <math>h_{FE}</math></li> <li>(4) L: Lead Free , G: Halogen Free</li> </ul>
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### ■ ABSOLUTE MAXIMUM RATING (T<sub>C</sub> = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	-230	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-230	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-15	A
Base Current	I <sub>B</sub>	-1.5	A
Collector Power Dissipation (T <sub>C</sub> =25°C)	P <sub>C</sub>	150	W
Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 ~ +125	°C

Note: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. The device is guaranteed to meet performance specification within 0°C~70°C operating temperature range and assured by design from -20°C~85°C

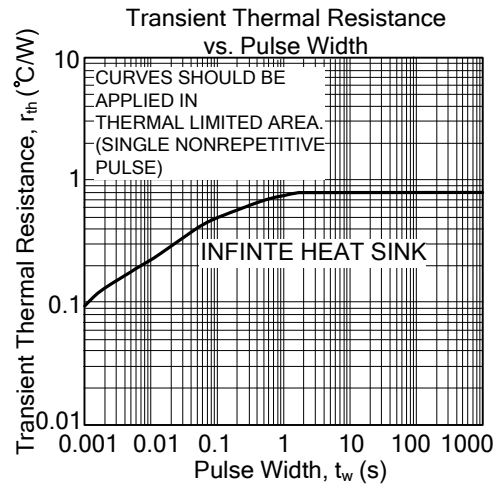
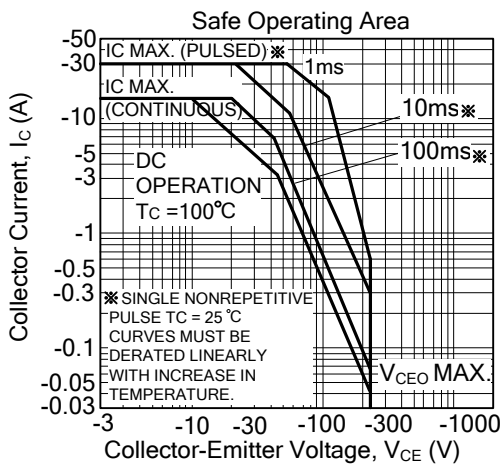
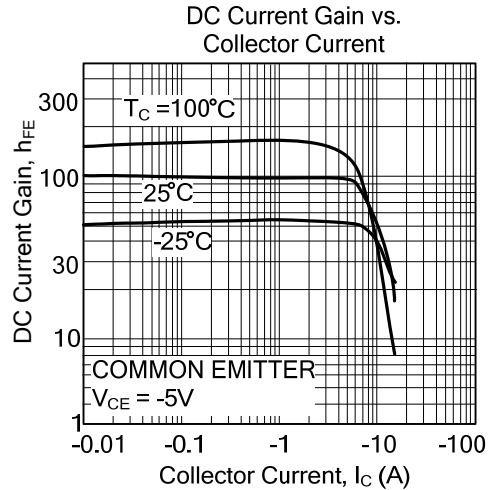
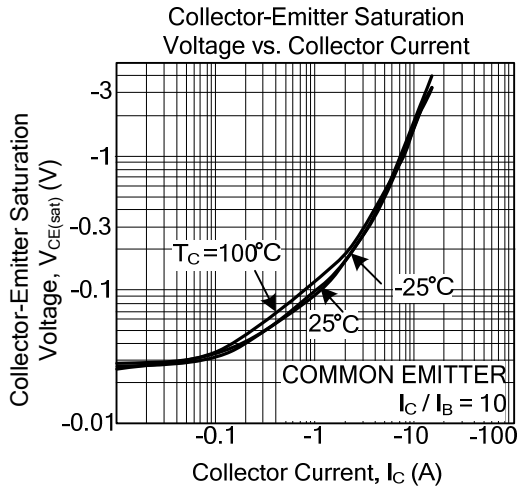
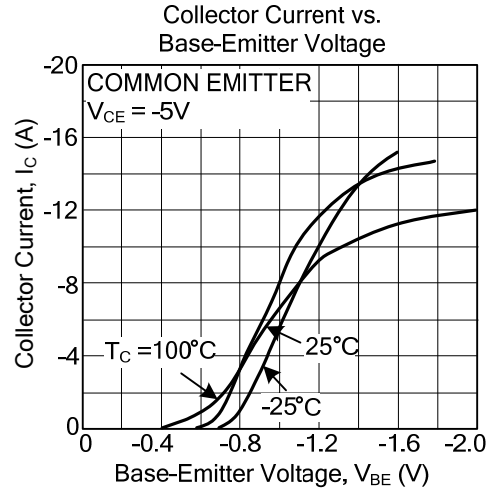
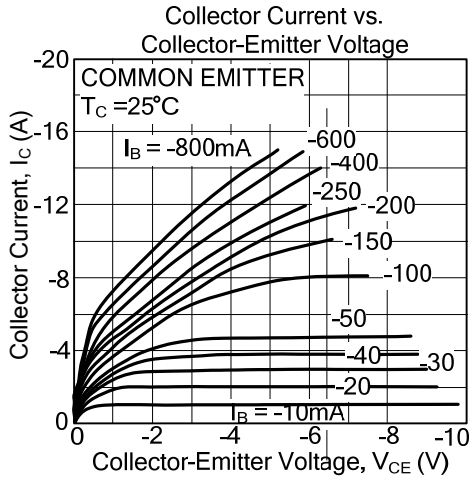
### ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I <sub>CB0</sub>	V <sub>CB</sub> = -230V, I <sub>E</sub> =0			-5.0	μA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> =0			-5.0	μA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -50mA, I <sub>B</sub> =0	-230			V
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -1A	55		160	
	h <sub>FE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -7A	35	60		
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> = -8A, I <sub>B</sub> = -0.8A		-1.5	-3.0	V
Base -Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -7A		-1.0	-1.5	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -1A		30		MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> =0, f=1MHz		360		pF

### ■ CLASSIFICATION OF h<sub>FE</sub>

Rank	R	O
Range	55 ~ 110	80 ~ 160

## TYPICAL CHARACTERISTICS



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