

# SILICON TRANSISTORS 2SA1221, 1222

# PNP SILICON EPITAXIAL TRANSISTOR FOR LOW-FREQUENCY POWER AMPLIFIERS

#### **FEATURES**

- Ideal for use of high withstanding voltage current such as TV vertical deflection output, audio output, and variable power supplies.
- · Complementary transistor with 2SC2958 and 2SC2959

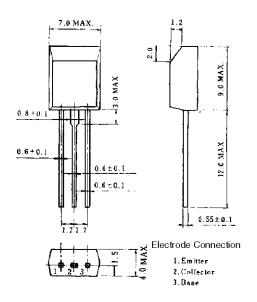
VCEO = 140 V: 2SA1221/2SC2958 VCEO = 160 V: 2SA1222/2SC2959

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

Parameter	Symbol	Ratings	Unit
Collector to base voltage	Vcво	-160	V
Collector to emitter voltage	VCEO	-140/-160	V
Emitter to base voltage	V <sub>EBO</sub>	-5.0	V
Collector current (DC)	Ic(DC)	-500	mA
Collector current (pulse)	Ic(pulse)*	-1.0	Α
Total power dissipation	Рт	1.0	W
Junction temperature	Tj	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

<sup>\*</sup> PW  $\leq$  10 ms, duty cycle  $\leq$  50%

# PACKAGE DRAWING (UNIT: mm)



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

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Collector cutoff current	Ісво	V <sub>CB</sub> = -100 V, I <sub>E</sub> = 0			-200	nA
Emitter cutoff current	Ієво	V <sub>EB</sub> = -5.0 V, I <sub>C</sub> = 0			-200	nA
DC current gain	h <sub>FE</sub> **	$V_{CE} = -2.0 \text{ V}, \text{ Ic} = -100 \text{ mA}$	100	150	400	
DC base voltage	V <sub>BE</sub> **	$V_{CE} = -5.0 \text{ V}, \text{ Ic} = -20 \text{ mA}$	-0.6	-0.64	-0.7	V
Collector saturation voltage	V <sub>CE(sat)</sub> **	Ic = -1.0  A, IB = -0.2  A		-0.6	-0.9	V
Base saturation voltage	V <sub>BE(sat)</sub> **	Ic = -1.0 A, Iв = -0.2 A		-1.1	-0.3	V
Output capacitance	Cob	Vcb = -10 V, IE = 0, f = 1.0 MHz		24	40	pF
Gain bandwidth product	f⊤	Vce = -10 V, Ie = 20 mA	30	45		MHz

<sup>\*\*</sup> Pulse test PW  $\leq$  350  $\mu$ s, duty cycle  $\leq$  2% per pulsed

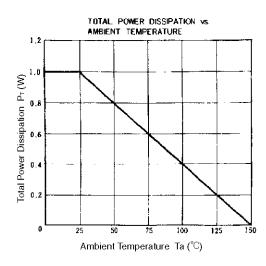
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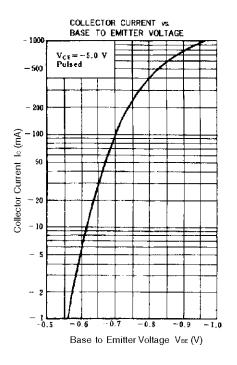


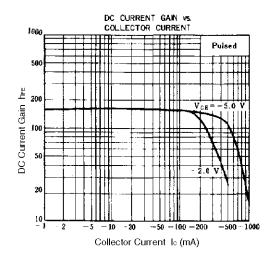
### **hfe CLASSIFICATION**

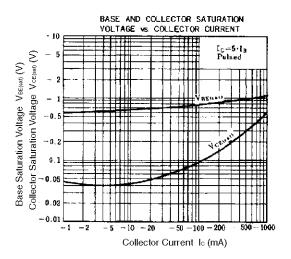
Marking	М	L	K
hfE	100 to 200	160 to 320	200 to 400

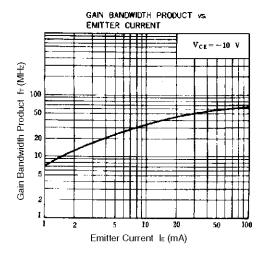
# TYPICAL CHARACTERISTICS (Ta = 25°C)

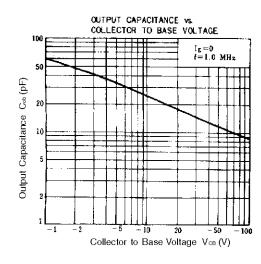












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