

**KSC2316**

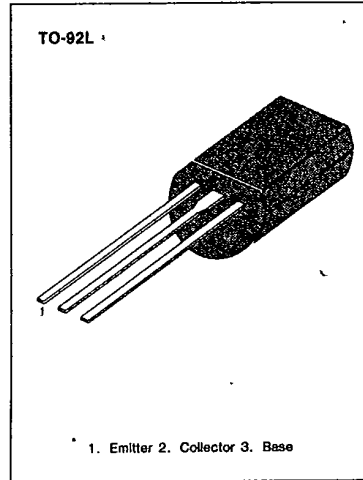
**NPN EPITAXIAL SILICON TRANSISTOR**

**AUDIO POWER AMPLIFIER APPLICATIONS**

- Driver Stage Amplifier
- Complement to KSA916

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CBO</sub>	120	V
Collector-Emitter Voltage	V <sub>CEO</sub>	120	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	800	mA
Collector Dissipation	P <sub>C</sub>	900	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 - +150	°C



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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> = 1mA, I <sub>E</sub> = 0	120			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0	120			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> = -1mA, I <sub>C</sub> = 0	5			V
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = 120V, I <sub>E</sub> = 0			0.1	μA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA	60			
	h <sub>FE2</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 100mA	80		240	
Collector-Emitter Saturation Voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA			1	V
Current-Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 100mA		120		MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0 f = 1MHz			30	pF

**h<sub>FE</sub> CLASSIFICATION**

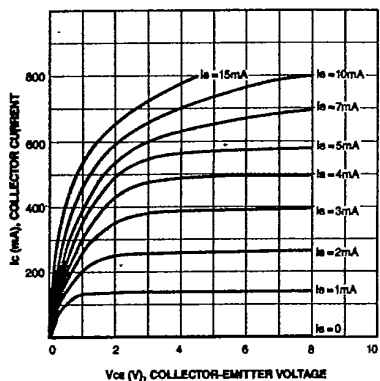
Classification	O	Y
h <sub>FE</sub> (2)	80-160	120-240

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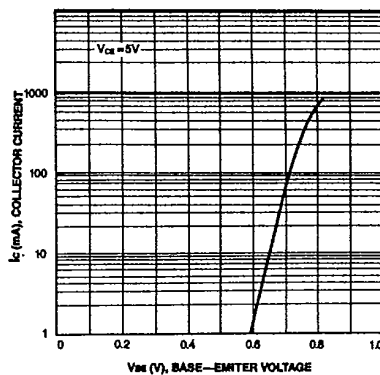
NPN EPITAXIAL SILICON TRANSISTOR

T-29-23

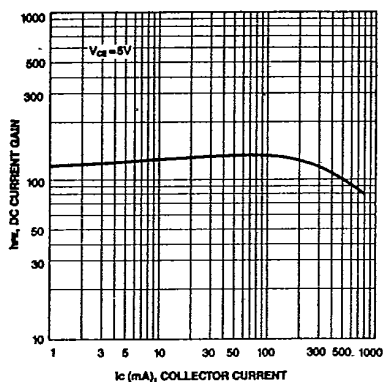
STATIC CHARACTERISTIC



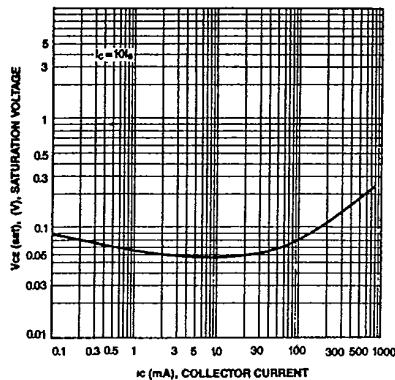
BASE-EMITTER ON VOLTAGE



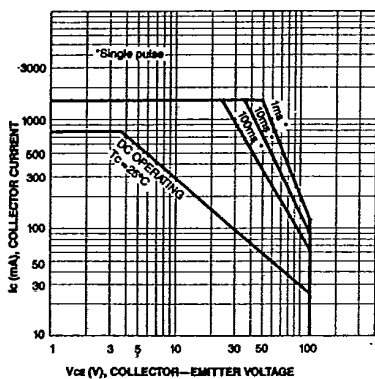
DC CURRENT GAIN



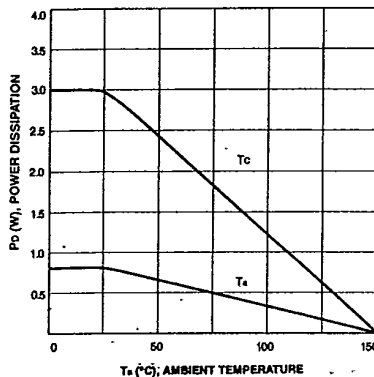
COLLECTOR-EMITTER SATURATION VOLTAGE



SAFE OPERATING AREA



POWER DERATING



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