T-29-23

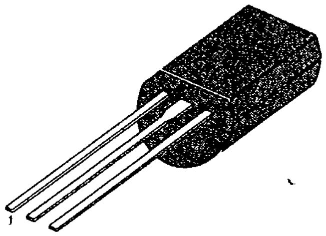
KSC2316

NPN EPITAXIAL SILICON TRANSISTOR

AUDIO POWER AMPLIFIER APPLICATIONS

- **Driver Stage Amplifier**
- **Complement to KSA916**

TO-92L



1. Emitter 2. Collector 3. Base

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	800	mA
Collector Dissipation	P_C	900	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=1mA, I_E=0	120			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, I_B=0	120			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=−1mA, I_C=0	5			V
Collector Cutoff Current	I_{CBO}	V_{CB}=120V, I_E=0			0.1	μA
DC Current Gain	h_{FE1}	V_{CE}=5V, I_C=10mA	60			
	h_{FE2}	V_{CE}=5V, I_C=100mA	80		240	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=500mA, I_B=50mA			1	V
Current-Gain-Bandwidth Product	f_T	V_{CE}=5V, I_C=100mA		120		MHz
Collector Output Capacitance	Cob	V_{CB}=10V, I_E=0 f=1MHz			30	pF

h_{FE} CLASSIFICATION

Classification	O	Y
h_{FE}(2)	80-160	120-240

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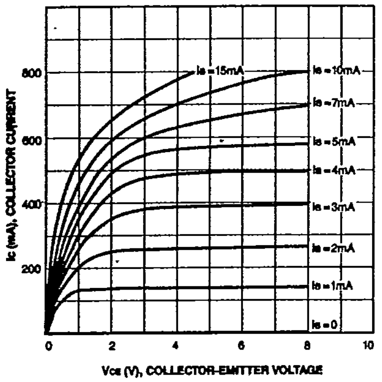
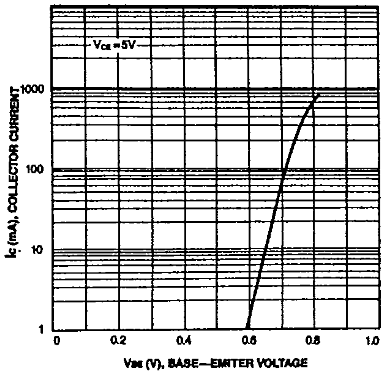
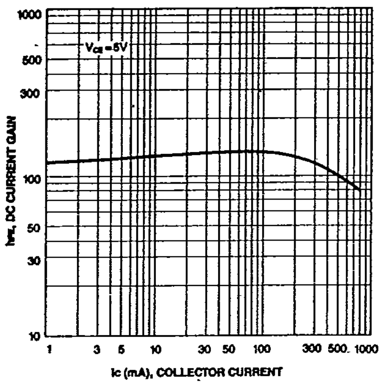
STATIC CHARACTERISTIC



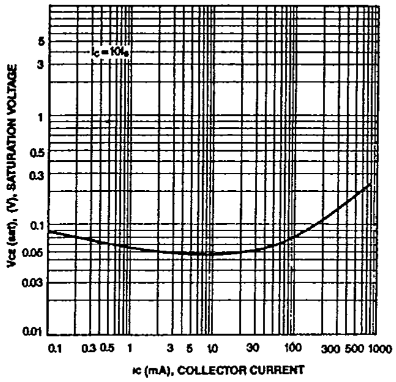
BASE-EMITTER ON VOLTAGE



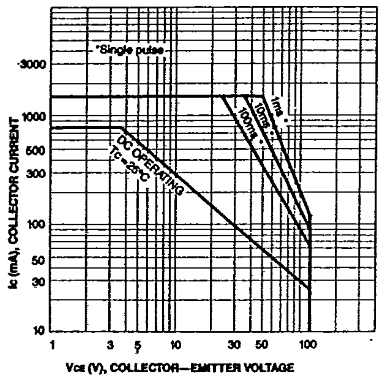
DC CURRENT GAIN



COLLECTOR-EMITTER SATURATION VOLTAGE



SAFE OPERATING AREA



POWER DERATING