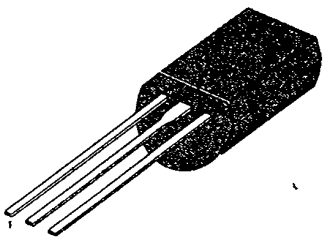
KSC2328A NPN EPITAXIAL SILICON TRANSISTOR

T-29-23

AUDIO POWER AMPLIFIER APPLICATIONS

- Complement to KSA928A
- Collector Dissipation P_C=1 Watt
- 3 Watt Output Application

TO-92L



1. Emitter 2. Collector 3. Base

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Collector Dissipation	P_C	1	W
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=100μA, I_E=0	30			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, I_B=0	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=−1mA, I_C=0	5			V
Collector Cutoff Current	I_{CBO}	V_{CB}=30V, I_E=0			100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			100	nA
DC Current Gain	h_{FE}	V_{CE}=2V, I_C=500mA	100		320	
Base-Emitter On Voltage	V_{BE} (on)	V_{CE}=2V, I_C=500mA			1.0	V
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=1.5A, I_B=0.03A			2.0	V
Current Gain-Bandwidth Product	f_T	V_{CE}=2V, I_C=500mA		120		MHz
Output Capacitance	Cob	V_{CB}=10V, I_E=0, f=1MHz		30		pF

h_{FE} CLASSIFICATION

Classification	O	Y
h_{FE}	100-200	160-320

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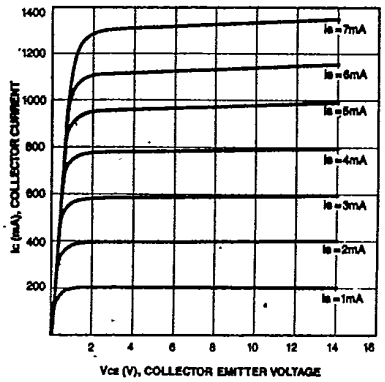
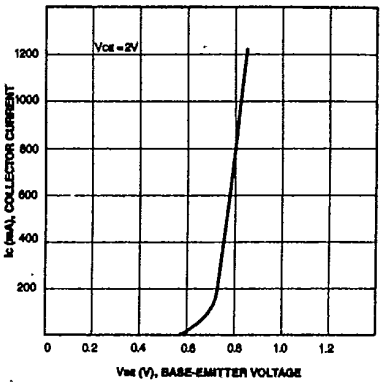
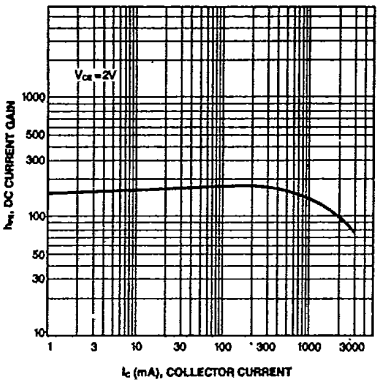
STATIC CHARACTERISTIC



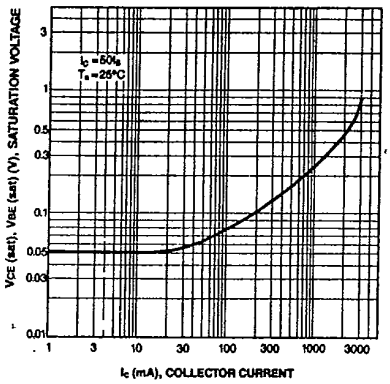
BASE-EMITTER ON VOLTAGE



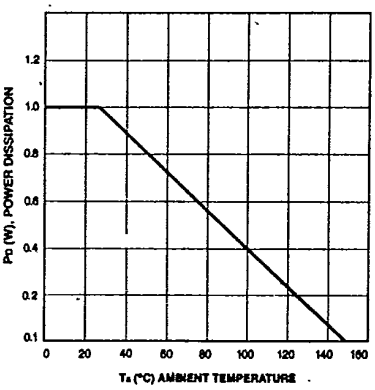
DC CURRENT GAIN



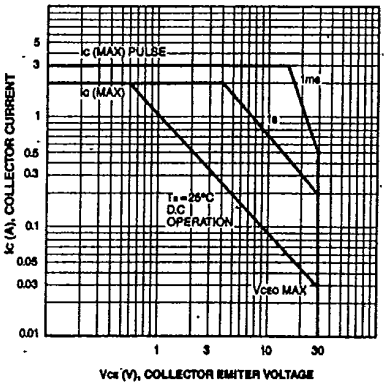
COLLECTOR-EMITTER SATURATION VOLTAGE



POWER DERATING



SAFE OPERATING AREA



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