FAIRCHILD
SEMICONDUCTOR®

KSC2328A

Audio Power Amplifier Applications

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

TO-92L

1. Emitter 2. Collector 3. Base

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	2	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0	30			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=10mA, I_B=0	30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=1mA, I_C=0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB}=30V, I_E=0			100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=5V, I_C=0			100	nA
h_{FE}	DC Current Gain	V_{CE}=2V, I_C=500mA	100		320	
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}=2V, I_C=500mA			1.0	V
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=1.5A, I_B=0.03A			2.0	V
f_T	Current Gain Bandwidth Product	V_{CE}=2V, I_C=500mA		120		MHz
C_{ob}	Collector Output Capacitance	V_{CB}=10V,I_E=0, f=1MHz		30		pF

h_{FE} Classification

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

Typical Characteristics

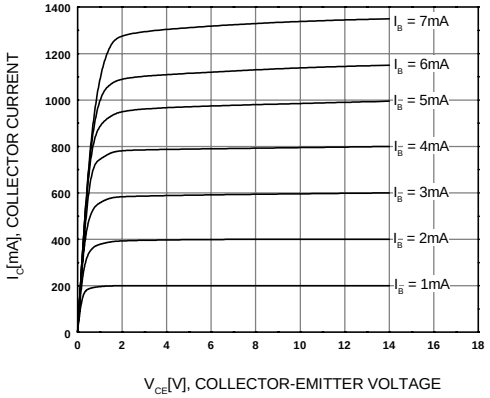


Figure 1. Static Characteristic

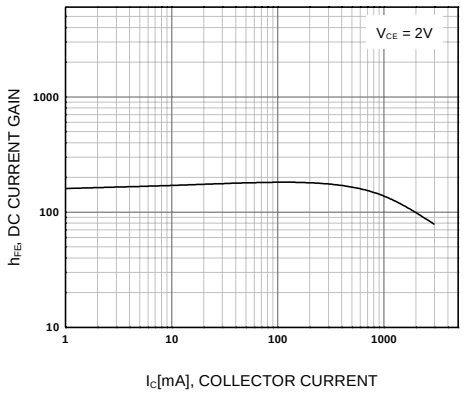


Figure 2. DC current Gain

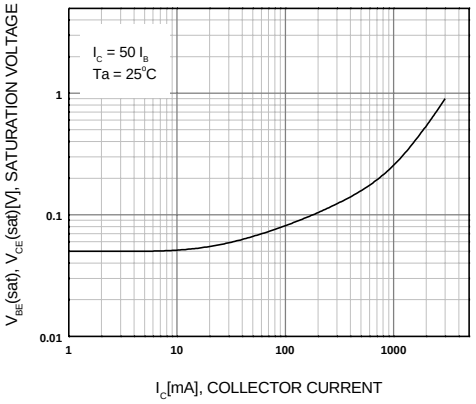


Figure 3. Collector-Emitter Saturation Voltage

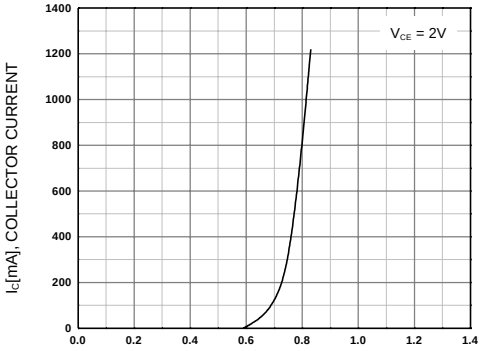


Figure 4. Base-Emitter On Voltage

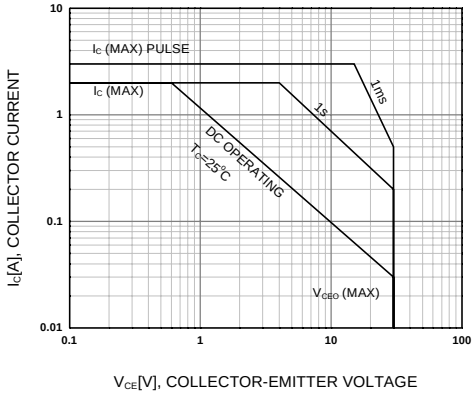


Figure 5. Safe Operating Area

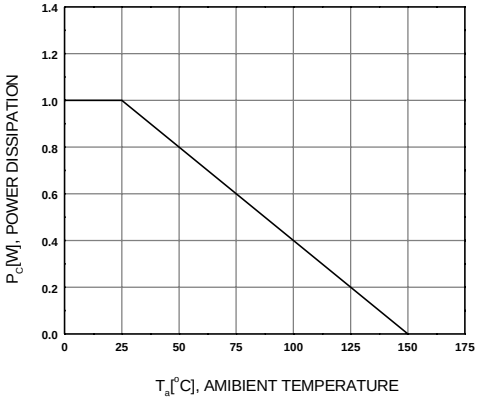
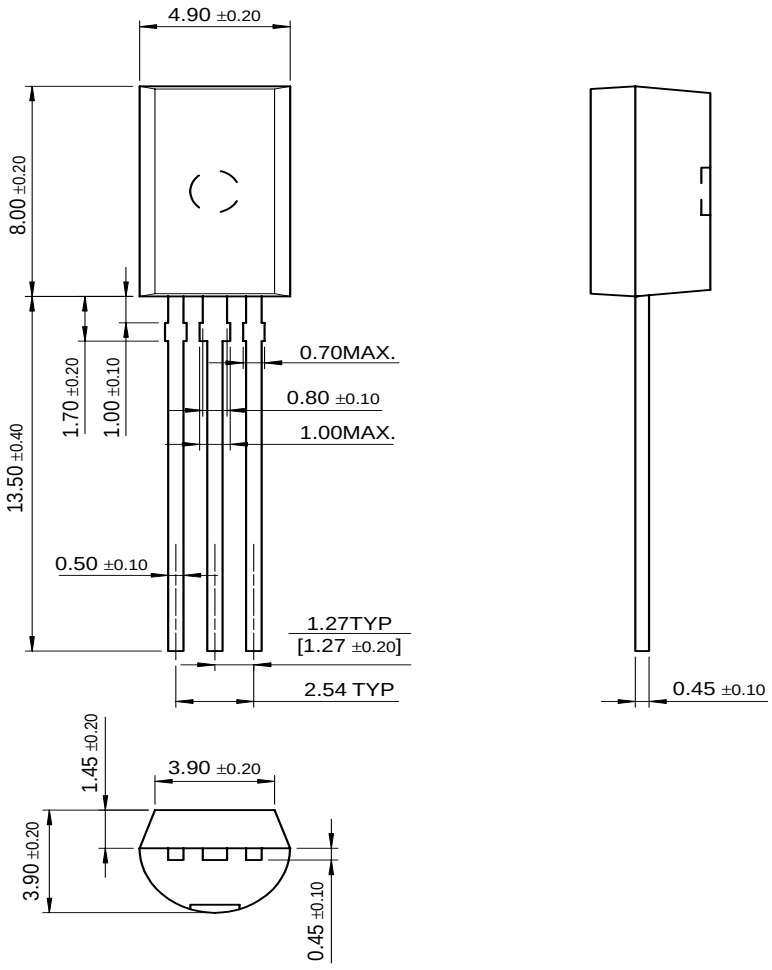


Figure 6. Power Derating

Package Demensions

TO-92L



Dimensions in Millimeters

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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KSC2328A
NPN Epitaxial Silicon Transistor

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Features

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

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Applications

Audio Power Amplifier

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSC2328AYTA	Full Production	$0.095	TO-92	3	TAPE REEL
KSC2328AOBU	Full Production	$0.095	TO-92	3	BULK
KSC2328AOTA	Full Production	$0.095	TO-92	3	TAPE REEL
KSC2328AYBU	Full Production	$0.095	TO-92	3	BULK
KSC2328AYSHBU	Full Production	$0.095	TO-92	3	BULK

* 1,000 piece Budgetary Pricing

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Models

Package & leads	Condition	Temperature range	Software version	Revision date

PSPICE				
TO-92-3	Electrical/Thermal	-25°C to 100°C	9	Aug 28, 2000

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