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Fairchild Semiconductor
KSP6521BU

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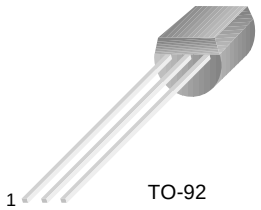
FAIRCHILD SEMICONDUCTOR®

KSP6520/6521

Amplifier Transistor

- Collector-Emitter Voltage: V_{CEO}=25V
- Collector Power Dissipation: P_C (max)=625mW



TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

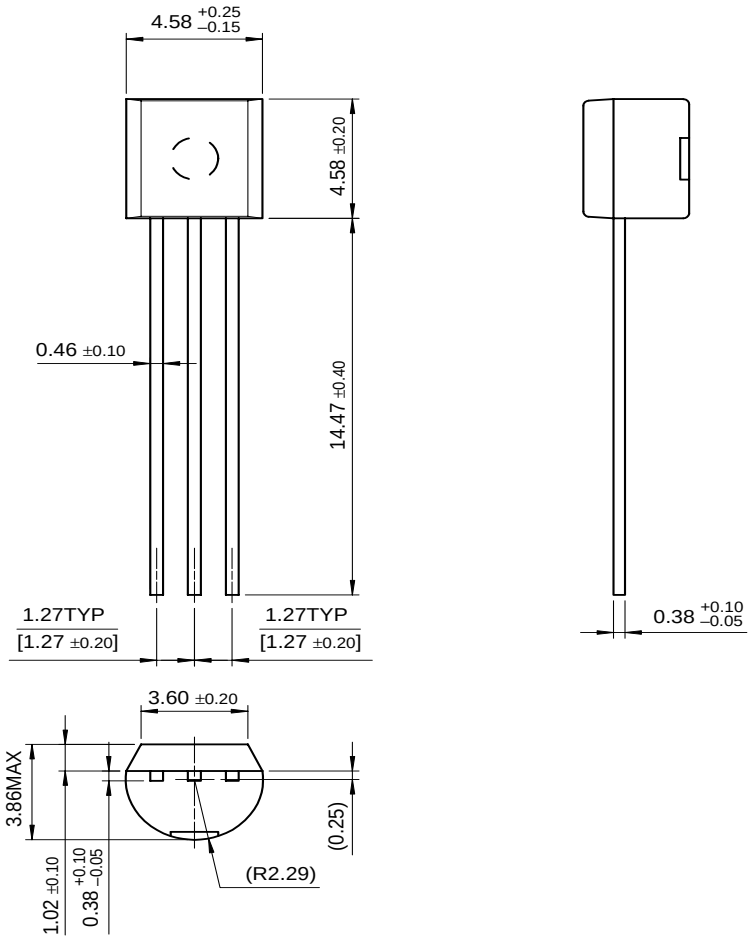
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	100	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typl	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=0.5mA, I_B=0	25			V
BV_{EBO}	Emitter Base Breakdown Voltage	I_C=10, I_C=0	4			V
I_{CBO}	Collector Cut-off Current	V_{CB}=30V, I_E=0 V_{CE}=20V, I_E=0			50 50	nA nA
h_{FE}	DC Current Gain : KSP6520 : KSP6521 : KSP6520 : KSP6521	 I_C=100μA, V_{CE}=10V I_C=2mA, V_{CE}=10V	 100 150 200 300		 400 600	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=50mA, I_B=5mA			0.5	V
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0 f=100KHz			3.5	pF
NF	Noise Figure	I_C=10μA, V_{CE}=5V R_S=10KΩ f=10Hz to 10KHz			3	dB

Package Dimensions

TO-92



Dimensions in Millimeters

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Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Definition of Terms

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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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