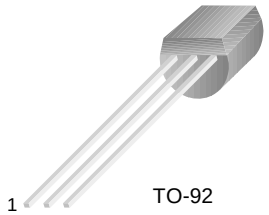
FAIRCHILD
SEMICONDUCTOR®

KSP94

High Voltage Transistor

- High Collector-Emitter Voltage: V_{CEO}= -400V
- Low Collector-Emitter Saturation Voltage
- Complement to KSP44



TO-92

1. Emitter 2. Base 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-300	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.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C= -100μA, I_E=0	-400			V
BV_{CES}	Collector-Emitter Breakdown Voltage	I_C= -100μA, V_{BE}=0	-400			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E= -10μA, I_C=0	-6			V
I_{CBO}	Collector Cut-off Current	V_{CB}= -300V, V_E=0			-100	nA
I_{CES}	Collector Cut-off Current	V_{CE}= -400V, V_{BE}=0V			-1	μA
I_{EBO}	Emitter Cut-off Current	V_{BE}= -4V, I_C=0			-100	nA
h_{FE1} h_{FE2} h_{FE3} h_{FE4}	DC Current Gain	V_{CE}= -10V, I_C= -1mA V_{CE}= -10V, I_C= -10mA V_{CE}= -10V, I_C= -50mA V_{CE}= -10V, I_C= -100mA	40 50 45 40		300	
V_{CE} (sat)$_1$ V_{CE} (sat)$_2$	Collector-Emitter Saturation Voltage	I_C= -10mA, I_B= -1mA I_C= -50mA, I_B= -5mA			-500 -750	mV mV
V_{BE} (sat)	Base-Emitter Saturation Voltage	I_C= -10mA, I_B= -1mA			-750	mV
C_{ob}	Output Capacitance	V_{CB}= -20V, I_E=0, f=1MHz		7		pF

Typical Characteristics

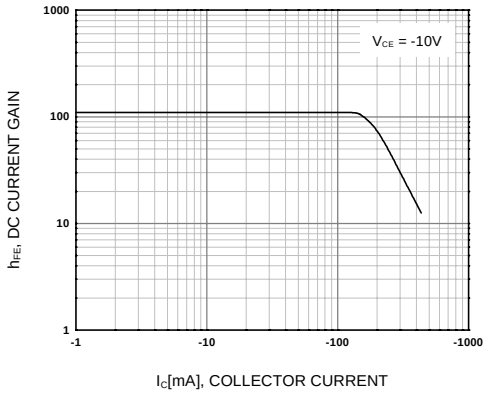


Figure 1. DC current Gain

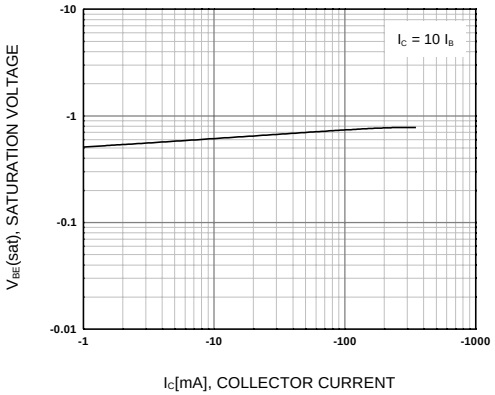


Figure 2. Base-Emitter Saturation Voltage

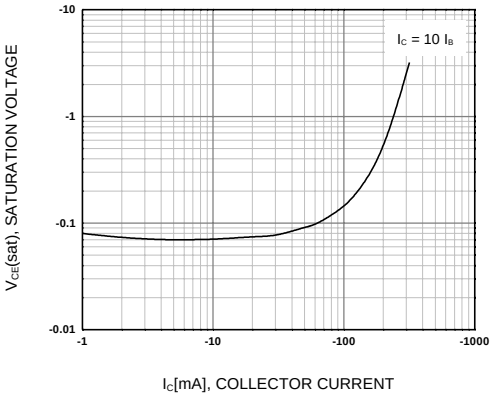


Figure 3. Collector-Emitter Saturation Voltage

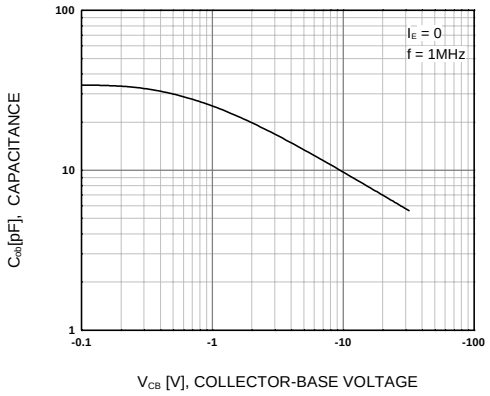
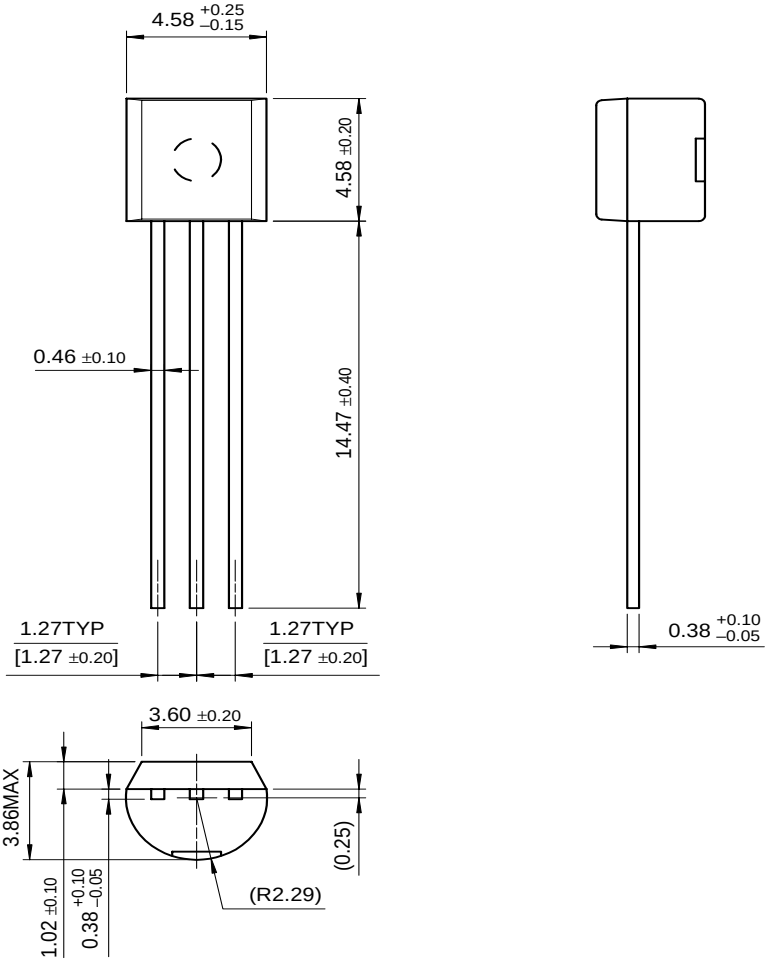


Figure 4. Collector Output Capacitance

Package Dimensions

TO-92



Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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