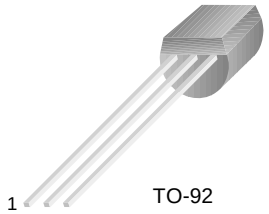
FAIRCHILD
SEMICONDUCTOR TM

KSP2222

General Purpose Transistor

- Collector-Emitter Voltage: V_{CEO}= 30V
- Collector Dissipation: P_C (max)=625mW



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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	60	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	600	mA
P_C	Collector 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=10μA, I_E=0	60			V
BV_{CEO}	Collector Emitter Breakdown Voltage	I_C=10mA, I_B=0	30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB}=50V, I_E=0			10	nA
h_{FE}	DC Current Gain	V_{CE}=10V, I_C=0.1mA V_{CE}=10V, I_C=1mA V_{CE}=10V, I_C=10mA V_{CE}=10V, *I_C=150mA V_{CE}=10V, *I_C=500mA	35 50 75 100 30		 300 	
V_{CE} (sat)	* Collector-Emitter Saturation Voltage	I_C=150mA, I_B=15mA I_C=500mA, I_B=50mA			0.4 1.6	V V
V_{BE} (sat)	* Base Emitter Saturation Voltage	I_C=150mA, I_B=15mA I_C=500mA, I_B=50mA			1.3 2.6	V V
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0, f=1MHz			8	pF
f_T	Current Gain Bandwidth Product	V_{CE}=20V, I_C=20mA f=100MHz	250			MHz
t_{ON}	Turn On Time	V_{CC}=30V, $V_{BE(off)}$=0.5V I_C=150mA, I_{B1}=15mA			35	ns
t_{OFF}	Turn Off Time	V_{CC}=30V, I_C=150mA I_{B1}=I_{B2}=15mA			285	ns

* Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

Typical Characteristics

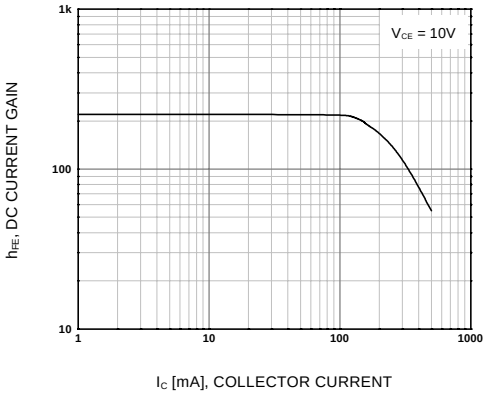

Figure 1. DC current Gain

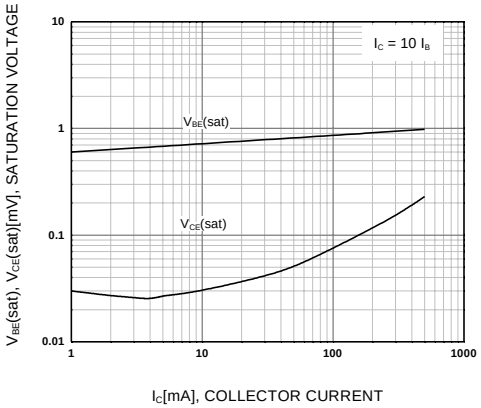

Figure 2. Collector-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

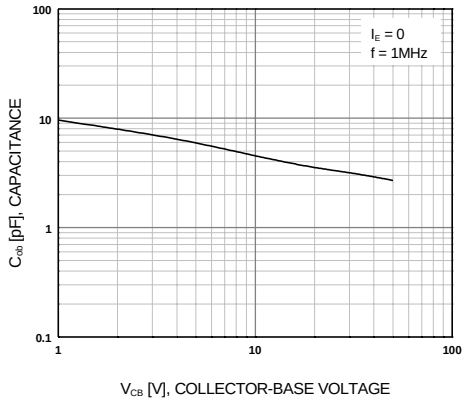

Figure 3. Collector Output Capacitance

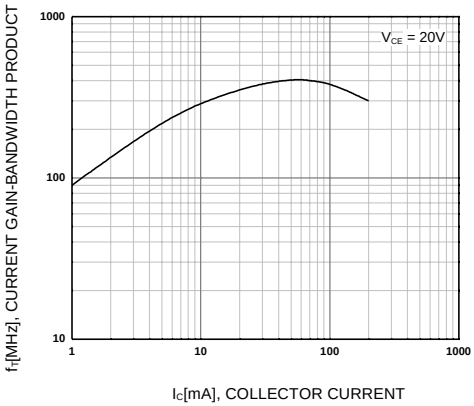

Figure 4. Current Gain Bandwidth Product

Package Demensions

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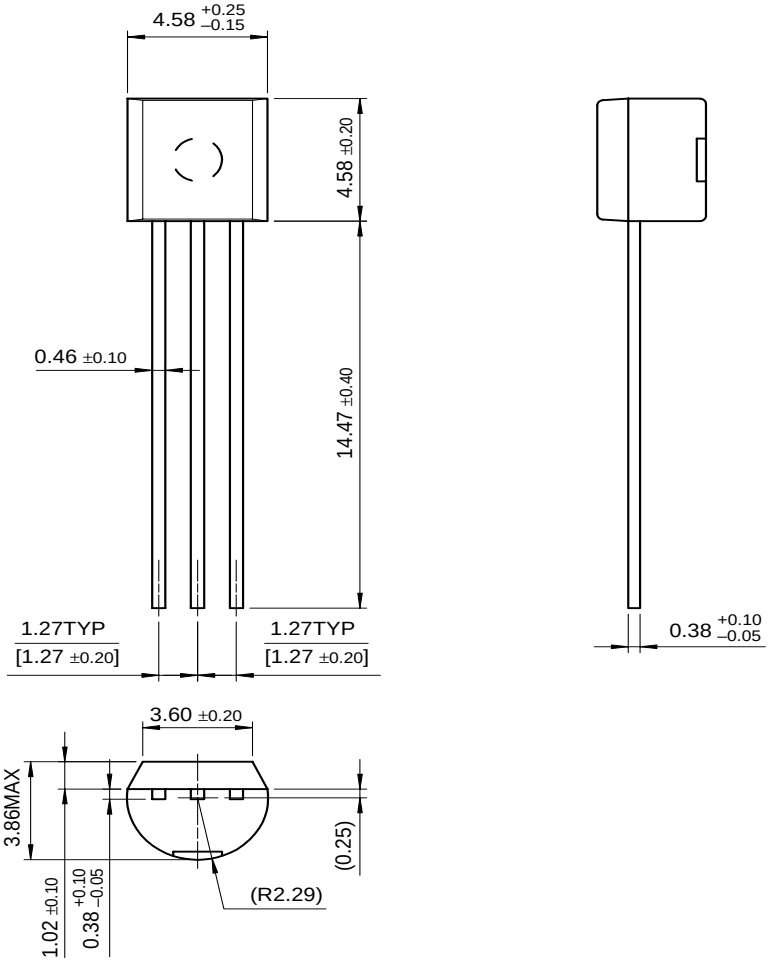

Dimensions in Millimeters

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