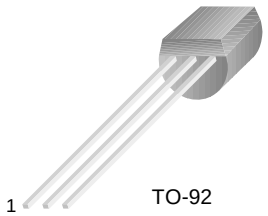
FAIRCHILD
SEMICONDUCTOR®

KSP2222A

General Purpose Transistor

- Collector-Emitter Voltage: V_{CEO}= 40V
- Collector Power Dissipation: P_C (max)=625mW
- Refer KSP2222 for graphs



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	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

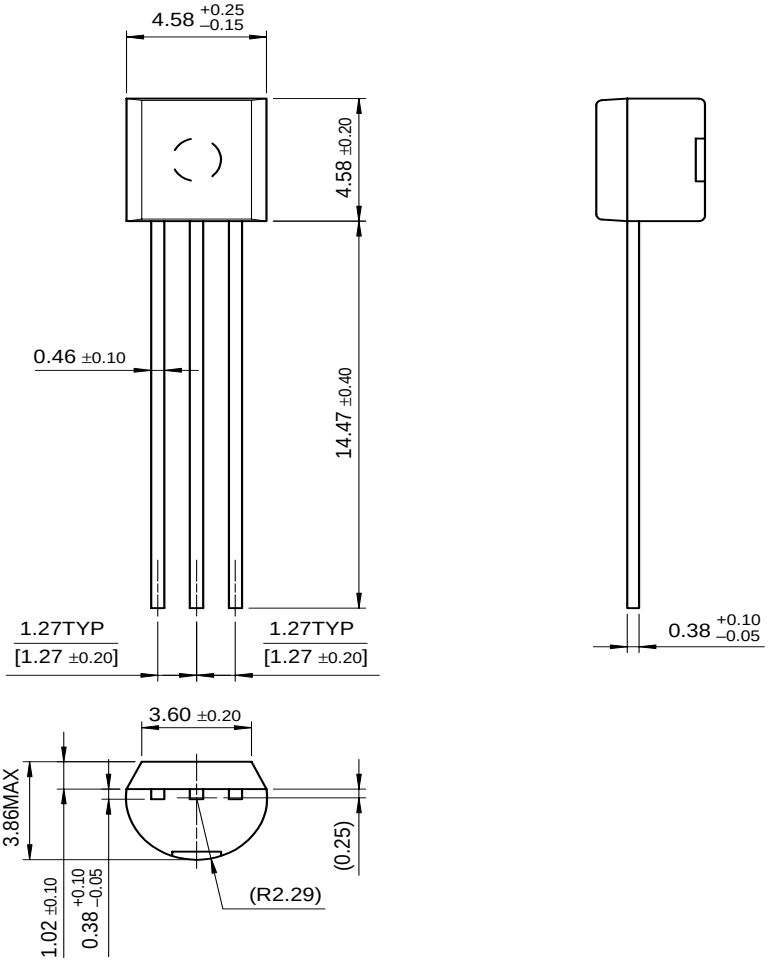
Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=10μA, I_E=0	75			V
BV_{CEO}	Collector Emitter Breakdown Voltage	I_C=10mA, I_B=0	40			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	6			V
I_{CBO}	Collector Cut-off Current	V_{CB}=60V, I_E=0			0.01	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=3V, I_C=0			10	nA
h_{FE}	DC Current Gain	I_C=0.1mA, V_{CE}=10V 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 40		 300 	
V_{CE} (sat)	* Collector-Emitter Saturation Voltage	I_C=150mA, I_B=15mA I_C=500mA, I_B=50mA			0.3 1	V V
V_{BE} (sat)	* Base-Emitter Saturation Voltage	I_C=150mA, I_B=15mA I_C=500mA, I_B=50mA		0.6	1.2 2	V V
f_T	Current Gain Bandwidth Product	V_{CE}=20V, I_C=20mA f=100MHz	300			MHz
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0, f=1MHz			8	pF
t_{ON}	Turn On Time	V_{CC}=30V, I_C=150mA I_{B1}=15mA, V_{BE}(off)=0.5V			35	ns
t_{OFF}	Turn Off Time	V_{CC}=30V, I_C=150mA I_{B1}=I_{B2}=15mA			285	ns
NF	Noise Figure	I_C=100μA, V_{CE}=10V R_S=IKΩ, f=1KHz			4	dB

* Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%
* Also available as and PN2222A

Package Demensions

TO-92



Dimensions in Millimeters

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