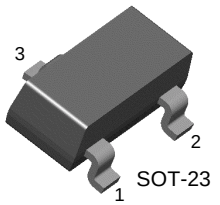
FAIRCHILD
SEMICONDUCTOR®

KST4124

General Purpose Transistor



1. Base 2. Emitter 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	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	200	mA
P_C	Collector Power Dissipation	350	mW
T_{STG}	Storage Temperature	150	°C

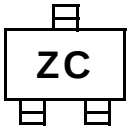
• Refer to KST3904 for graphs

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=10μA, I_E=0	30		V
BV_{CEO}	* Collector-Emitter Breakdown Voltage	I_C=1.0mA, I_B=0	25		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	5		V
I_{CBO}	Collector Cut-off Current	V_{CB}=20V, I_E=0		50	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=3V, I_C=0		50	nA
h_{FE}	* DC Current Gain	V_{CE}=1V, I_C=2mA V_{CE}=1V, I_C=50mA	120 60	360	
V_{CE} (sat)	* Collector-Emitter Saturation Voltage	I_C=50mA, I_B=5.0mA		0.3	V
V_{BE} (sat)	* Base-Emitter Saturation Voltage	I_C=50mA, I_B=5.0mA		0.95	V
f_T	Current Gain Bandwidth Product	I_C=10mA, V_{CE}=20V f=100MHz	300		MHz
C_{ob}	Output Capacitance	V_{CB}=5V, I_E=0, f=1.0MHz		4	pF
NF	Noise Figure	I_C=100μA, V_{CE}=5V R_S=1KΩ f=10Hz to 15.7KHz		5	dB

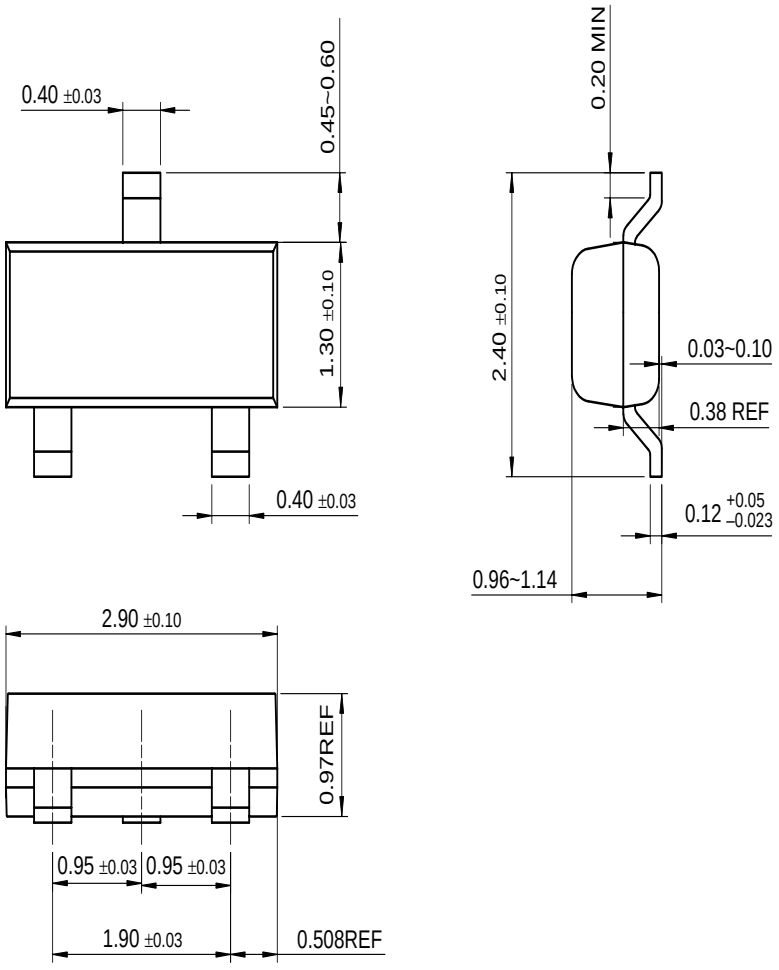
* Pulse Test: PW≤300μs, Duty Cycle≤2%

Marking



Package Dimensions

SOT-23



Dimensions in Millimeters

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