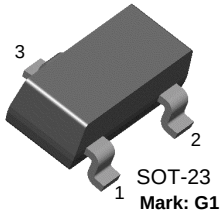
FAIRCHILD
SEMICONDUCTOR®

KST5551

Amplifier Transistor

- Collector-Emitter Voltage: V_{CEO}=160V
- Collector Power Dissipation: P_C (max)=350mW



SOT-23
Mark: G1

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	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	350	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

• Refer to 2N5551 for graphs

Electrical Characteristics T_a=25°C unless otherwise noted

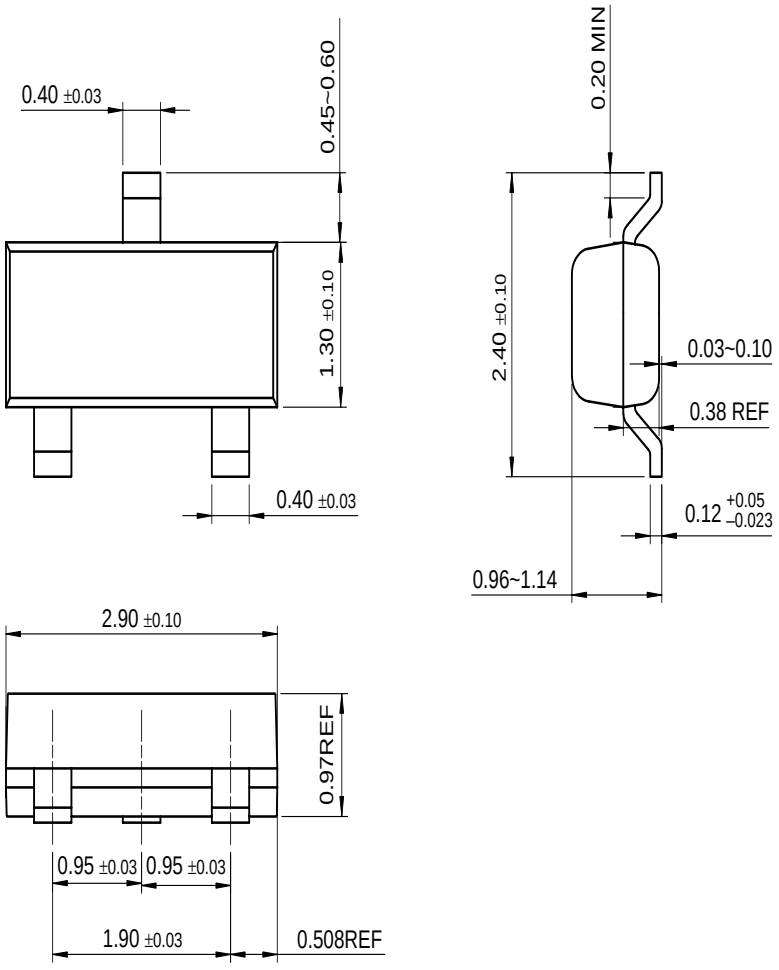
Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0	180		V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=1mA, I_B=0	160		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	6		V
I_{CBO}	Collector Cut-off Current	V_{CB}=120V, I_E=0		50	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=4V, I_C=0		50	nA
h_{FE}	DC Current Gain	V_{CE}=5V, I_C=1mA V_{CE}=5V, I_C=10mA V_{CE}=5V, I_C=50mA	80 80 30	 250 	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA		0.15 0.2	V V
V_{BE} (sat)	Base-Emitter Saturation Voltage	I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA		1 1	V V
f_T	Current Gain Bandwidth Product	V_{CE}=10V, I_C=10mA, f=100MHz	100	300	MHz
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0, f=1MHz		6	pF
NF	Noise Figure	V_{CE}=5V, I_C=250μA, R_S=1KΩ, f=10Hz to 15.7KMz		8	dB

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

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Package Dimensions

SOT-23



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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