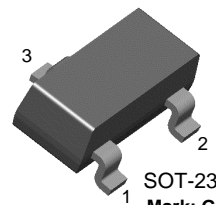


## KST5551

### Amplifier Transistor

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



SOT-23  
Mark: G1  
1. Base 2. Emitter 3. Collector

### NPN Epitaxial Silicon Transistor

#### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

• Refer to 2N5551 for graphs

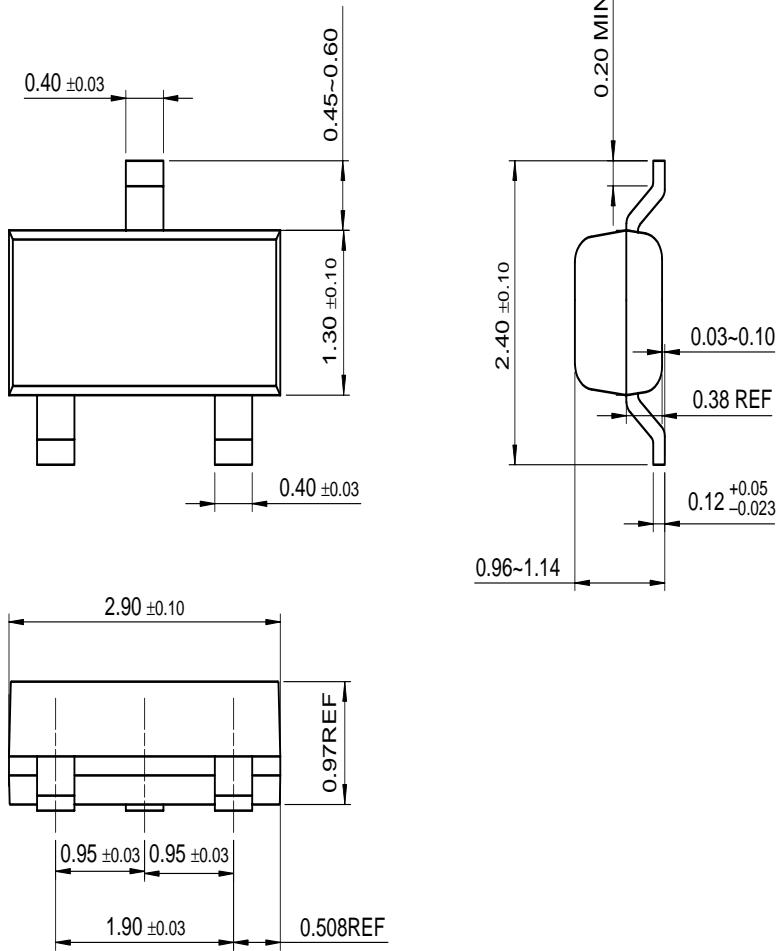
#### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}, I_E=0$	180		V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}, I_B=0$	160		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}, I_C=0$	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	$V_{CE}=5V, I_C=1\text{mA}$ $V_{CE}=5V, I_C=10\text{mA}$ $V_{CE}=5V, I_C=50\text{mA}$	80 80 30	250	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$ $I_C=50\text{mA}, I_B=5\text{mA}$		0.15 0.2	V V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$ $I_C=50\text{mA}, I_B=5\text{mA}$		1 1	V V
$f_T$	Current Gain Bandwidth Product	$V_{CE}=10V, I_C=10\text{mA},$ $f=100\text{MHz}$	100	300	MHz
$C_{ob}$	Output Capacitance	$V_{CB}=10V, I_E=0, f=1\text{MHz}$		6	pF
NF	Noise Figure	$V_{CE}=5V, I_C=250\mu\text{A}, R_S=1K\Omega,$ $f=10\text{Hz to }15.7\text{KMz}$		8	dB

\* Pulse Test: Pulse Width=300 $\mu\text{s}$ , Duty Cycle=2%

# Package Dimensions

## SOT-23



Dimensions in Millimeters

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