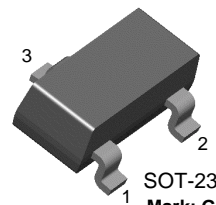


KST5551

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

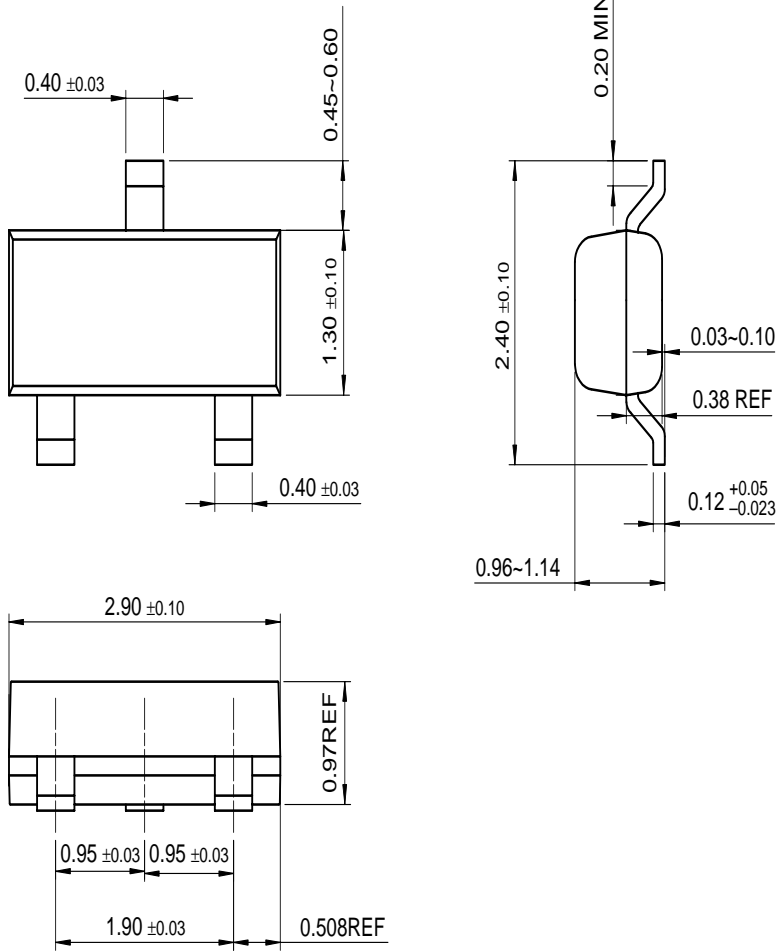
Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

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 μs , Duty Cycle=2%

Package Dimensions

SOT-23



Dimensions in Millimeters

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