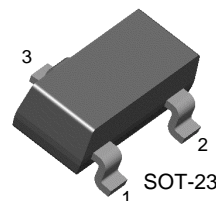


# KST10

## VHF/UHF Transistor



SOT-23  
1. Base 2. Emitter 3. Collector

## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

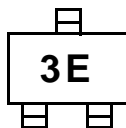
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector Base Voltage	30	V
$V_{CEO}$	Collector-Emitter Voltage	25	V
$V_{EBO}$	Emitter-Base Voltage	3	V
$P_C$	Collector Power Dissipation	350	mW
$T_{STG}$	Storage Temperature	150	$^\circ\text{C}$
$R_{TH(j-a)}$	Thermal Resistance junction to Ambient	357	$^\circ\text{C/W}$

• Refer to KSP10 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	$I_C=100\mu\text{A}, I_E=0$	30		V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}, I_B=0$	25		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}, I_C=0$	3		V
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=25\text{V}, I_E=0$		100	nA
$I_{EBO}$	Emitter Cut-off Current	$V_{BE}=2\text{V}, I_C=0$		100	nA
$h_{FE}$	DC Current Gain	$V_{CE}=10\text{V}, I_C=4\text{mA}$	60		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{mA}, I_B=0.4\text{mA}$		0.5	V
$V_{BE}$	Base-Emitter On Voltage	$V_{CE}=10\text{V}, I_C=4\text{mA}$		0.95	V
$f_T$	Current Gain Bandwidth Product	$V_{CE}=10\text{V}, I_C=4\text{mA}, f=100\text{MHz}$	650		MHz
$C_{ob}$	Output Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		0.7	pF
$C_{fb}$	Common-Base Feedback Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		0.65	pF
$C_{c-rbb}$	Collector Base Time Constant	$V_{CB}=10\text{V}, I_C=4\text{mA}, f=31.8\text{MHz}$		9	pF

Marking



# Package Dimensions

## SOT-23



Dimensions in Millimeters

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The Power Franchise <sup>™</sup>		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER <sup>®</sup>	VCX <sup>™</sup>
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