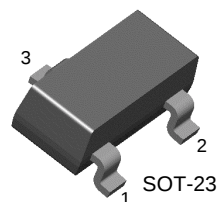


KST4403

KST4403

Switching Transistor



1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

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

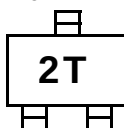
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-600	mA
P_C	Collector Power Dissipation	350	mW
T_{STG}	Storage Temperature	150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -0.1\text{mA}$, $I_E = 0$	-40		V
BV_{CEO}	* Collector-Emitter Breakdown Voltage	$I_C = -1.0\text{mA}$, $I_B = 0$	-40		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -0.1\text{mA}$, $I_C = 0$	-5		V
I_{BEV}	Base Cut-off Current	$V_{CE} = -35\text{V}$, $V_{BE} = -0.4\text{V}$		-0.1	μA
I_{CEX}	Collector Cut-off Current	$V_{CE} = -35\text{V}$, $V_{BE} = -0.4\text{V}$		-0.1	μA
h_{FE}	DC Current Gain	$V_{CE} = -1\text{V}$, $I_C = -0.1\text{mA}$ $V_{CE} = -1\text{V}$, $I_C = -1.0\text{mA}$ $V_{CE} = -1\text{V}$, $I_C = -10\text{mA}$ * $V_{CE} = -2\text{V}$, $I_C = -150\text{mA}$ * $V_{CE} = -2\text{V}$, $I_C = -500\text{mA}$	30 60 100 100 20	300	
$V_{CE}(\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C = -150\text{mA}$, $I_B = -15\text{mA}$ $I_C = -500\text{mA}$, $I_B = -50\text{mA}$		-0.4 -0.75	V V
$V_{BE}(\text{sat})$	* Base-Emitter Saturation Voltage	$I_C = -150\text{mA}$, $I_B = -15\text{mA}$ $I_C = -500\text{mA}$, $I_B = -50\text{mA}$	-0.75	-0.95 -1.3	V V
f_T	Current Gain Bandwidth Product	$I_C = -20\text{mA}$, $V_{CE} = -10\text{V}$ $f = 100\text{MHz}$	200		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}$, $I_E = 0$ $f = 140\text{KHz}$		8.5	pF
t_{ON}	Turn On Time	$V_{CC} = -30\text{V}$, $V_{BE} = -2\text{V}$ $I_C = -150\text{mA}$, $I_{B1} = -15\text{mA}$		35	ns
t_{OFF}	Turn Off Time	$V_{CC} = -30\text{V}$, $I_C = -150\text{mA}$ $I_{B1} = I_{B2} = -15\text{mA}$		255	ns

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

Marking



Typical Characteristics

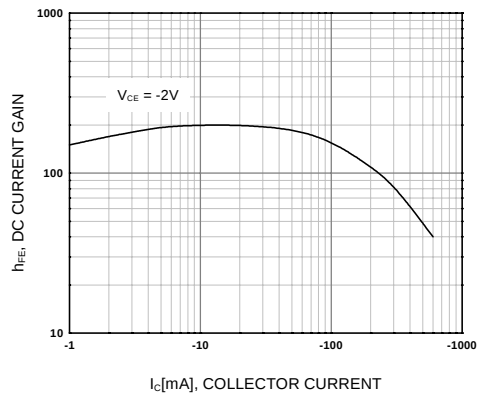


Figure 1. DC current Gain

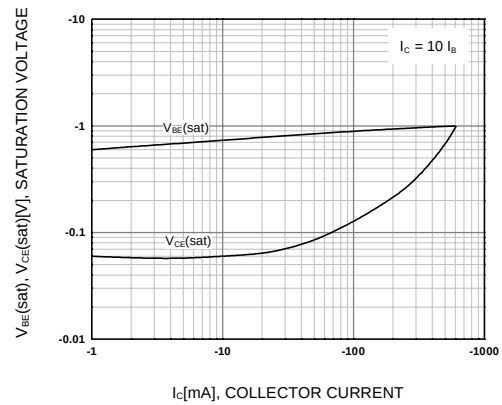


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

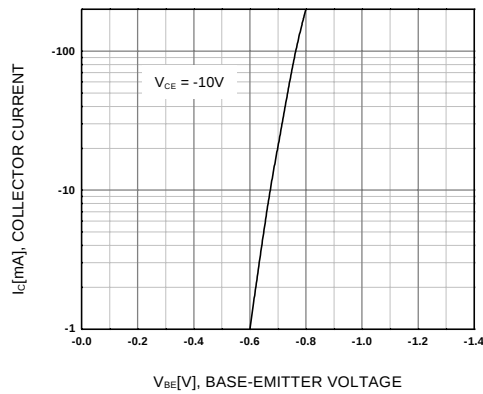


Figure 3. Base-Emitter On Voltage

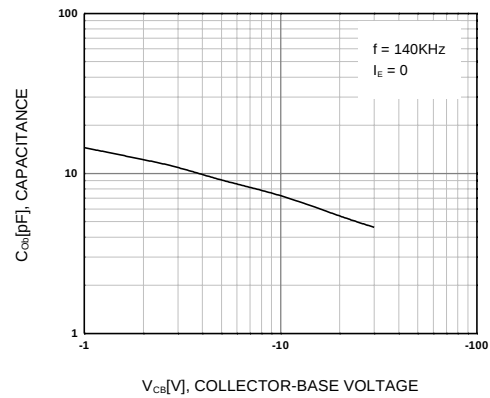


Figure 4. Collector-Base Capacitance

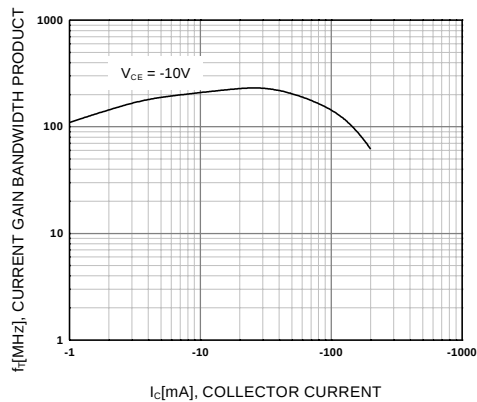
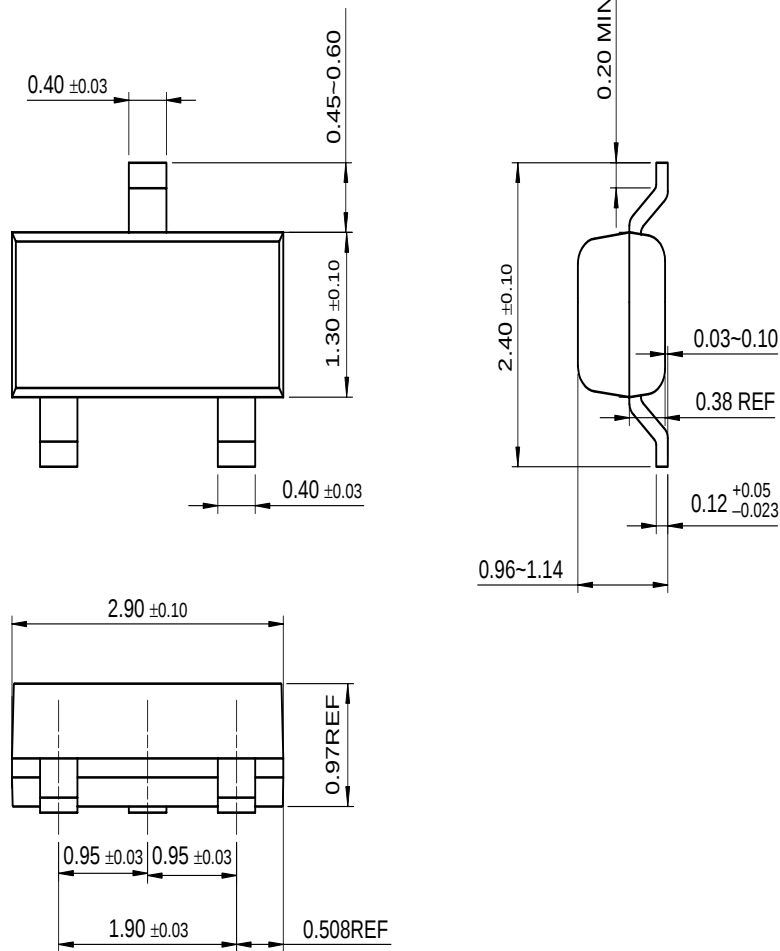


Figure 5. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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