

KST2907

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General Purpose Transistor



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

PNP Epitaxial Silicon Transistor

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

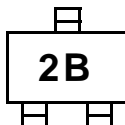
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-600	mA
P_C	Collector Dissipation	350	mW
T_{STG}	Storage Temperature	150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -10\mu\text{A}, I_E = 0$	-60		V
BV_{CEO}	* Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	-40		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}, I_C = 0$	-5		V
I_{CEX}	Collector Cut-off Current	$V_{CE} = -30\text{V}, V_{EB} = -0.5\text{V}$		-50	nA
I_{CBO}	Collector Cut-off Current	$V_{CB} = -50\text{V}, I_E = 0$		-0.02	μA
h_{FE}	DC Current Gain	$V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$ $V_{CE} = -10\text{V}, I_C = -1.0\text{mA}$ $V_{CE} = -10\text{V}, I_C = -10\text{mA}$ * $V_{CE} = -10\text{V}, I_C = -150\text{mA}$ * $V_{CE} = -10\text{V}, I_C = -500\text{mA}$	35 50 75 100 30	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 -1.6	V V
$V_{BE}(\text{sat})$	* Base-Emitter Saturation Voltage	$I_C = -150\text{mA}, I_B = -15\text{mA}$ $I_C = -500\text{mA}, I_B = -50\text{mA}$		-1.3 -2.6	V V
f_T	Current Gain Bandwidth Product	$I_C = -50\text{mA}, V_{CE} = -20\text{V}$ $f = 100\text{MHz}$	200		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 1.0\text{MHz}$		8.0	pF
t_{ON}	Turn On Time	$V_{CC} = -30\text{V}, I_C = -150\text{mA}$ $I_{B1} = -15\text{mA}$		45	ns
t_{OFF}	Turn Off Time	$V_{CC} = -6\text{V}, I_C = -150\text{mA}$ $I_{B1} = I_{B2} = -15\text{mA}$		100	ns

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

Marking



Typical Characteristics

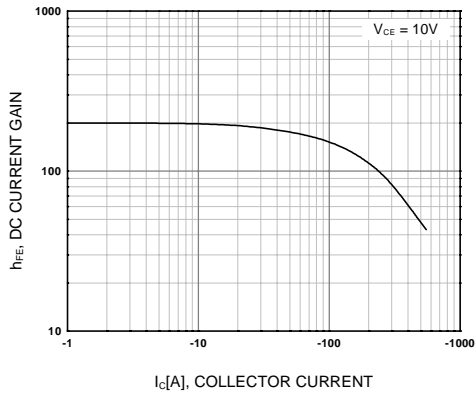


Figure 1. DC current Gain

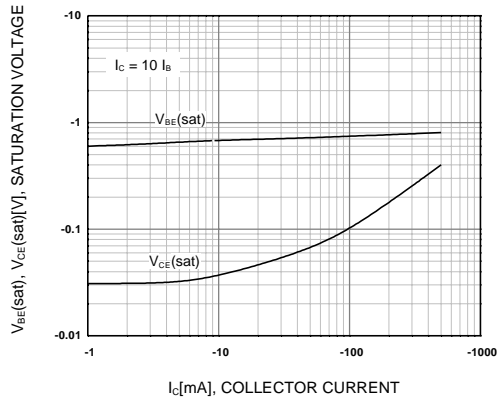


Figure 2. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

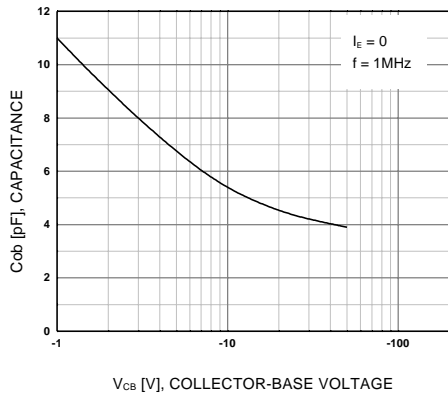


Figure 3. Output Capacitance

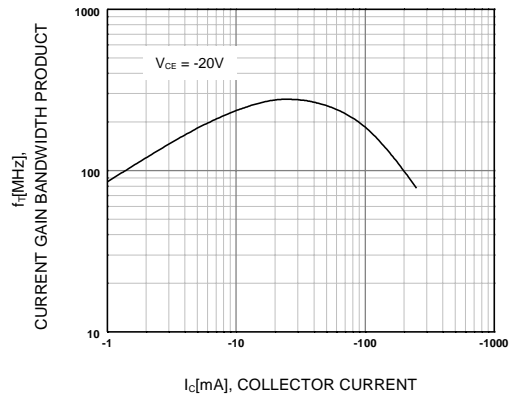
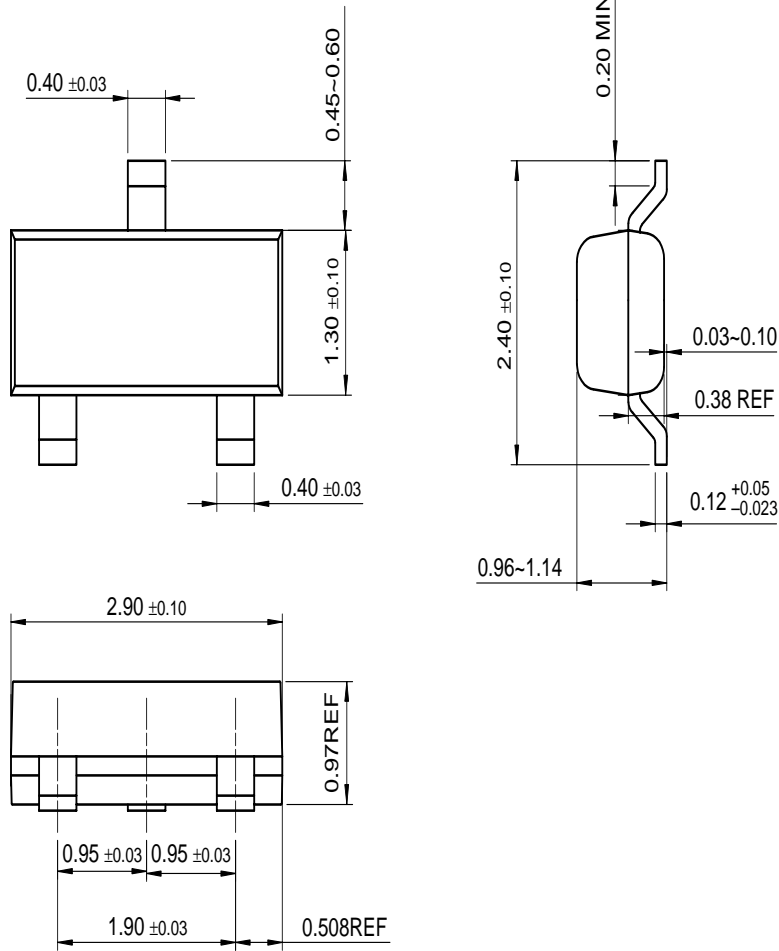


Figure 4. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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