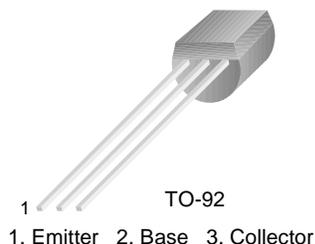


# KSP2907

KSP2907

## General Purpose Transistor

- Collector-Emitter Voltage:  $V_{CE0} = 40V$
- Collector Dissipation:  $P_C(\text{max}) = 625mW$



## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a = 25^\circ C$ 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	625	mW
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -10\mu A, I_E = 0$	-60			V
$BV_{CEO}$	* Collector Emitter Breakdown Voltage	$I_C = -10mA, I_B = 0$	-40			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	-5			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -50V, I_E = 0$			-20	nA
$h_{FE}$	DC Current Gain	$I_C = -0.1mA, V_{CE} = -10V$ $V_{CE} = -10V, I_C = -1mA$ $V_{CE} = -10V, I_C = -10mA$ $V_{CE} = -10V, *I_C = -150mA$ $V_{CE} = -10V, *I_C = -500mA$	35 50 75 100 30		300	
$V_{CE}(\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C = -150mA, I_B = -15mA$ $I_C = -500mA, I_B = -50mA$			-0.4 -1.6	V V
$V_{CE}(\text{sat})$	Base Emitter Saturation Voltage	$I_C = -150mA, I_B = -15mA$ $I_C = -500mA, I_B = -50mA$			-1.3 -2.6	V V
$C_{ob}$	Output Capacitance	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$			8	pF
$f_T$	* Current Gain Bandwidth Product	$I_C = -50mA, V_{CE} = -20V$ $f = 100MHz$	200			MHz
$t_{ON}$	Turn On Time	$V_{CC} = -30V, I_C = -150mA$ $I_{B1} = -15mA$			45	ns
$t_{OFF}$	Turn Off Time	$V_{CC} = -6V, I_C = -150mA$ $I_{B1} = I_{B2} = -15mA$			100	ns

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

\* Also available as a PN2907

# Typical Characteristics

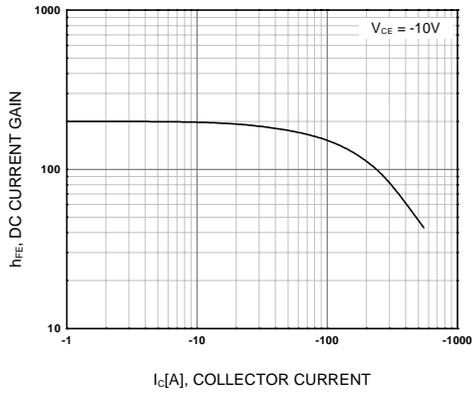


Figure 1. DC current Gain

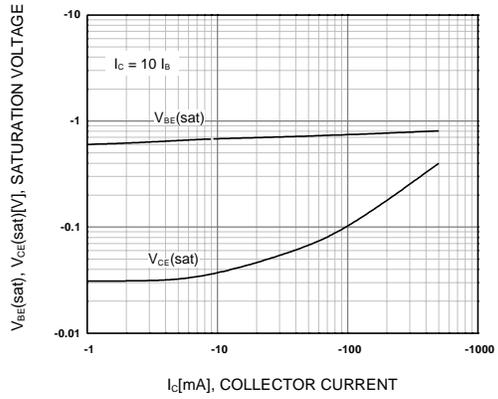


Figure 2. Collector-Emitter Saturation Voltage  
Base-Emitter Saturation Voltage

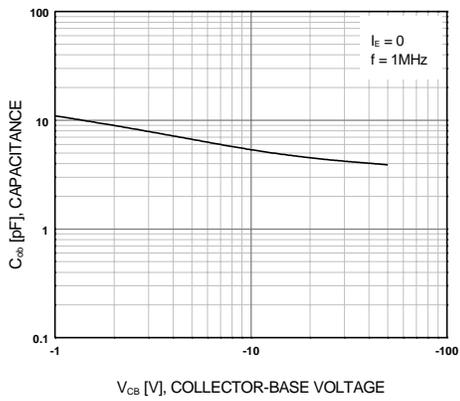


Figure 3. Output Capacitance

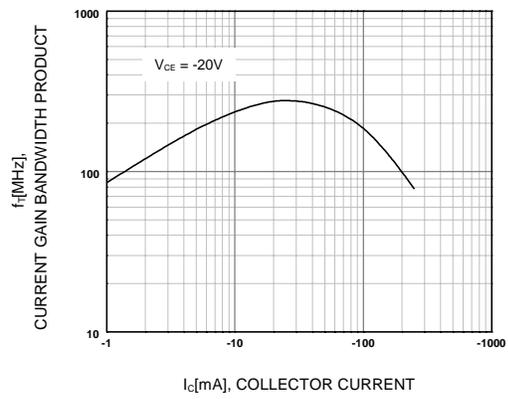
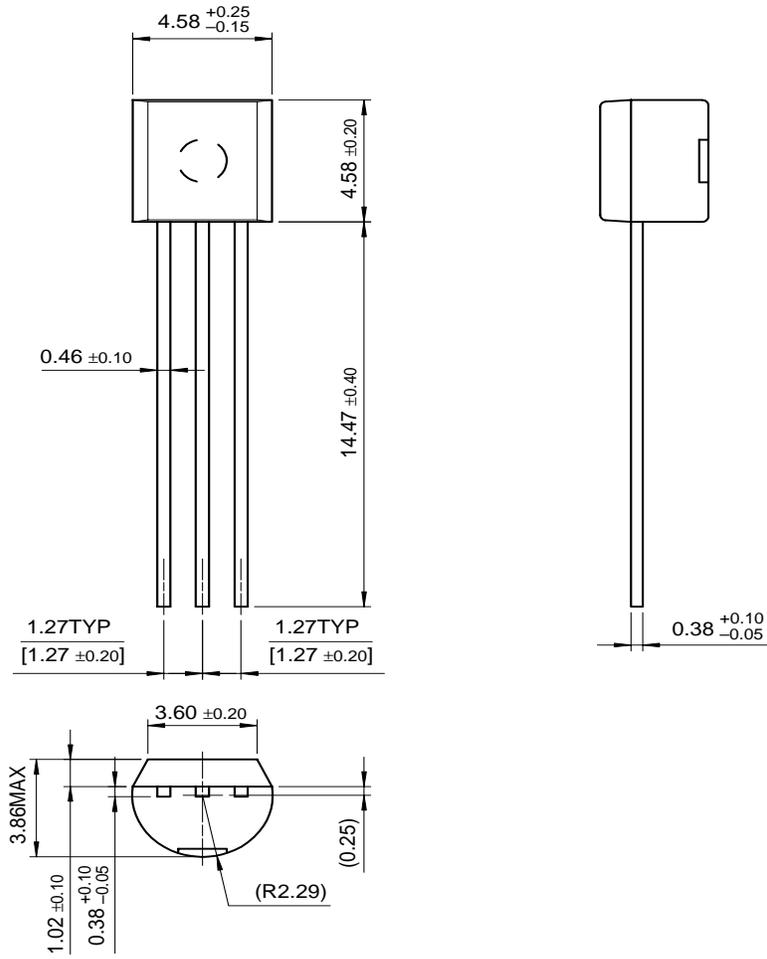


Figure 4. Current Gain Bandwidth Product

# Package Dimensions

KSP2907

## TO-92



Dimensions in Millimeters

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E <sup>2</sup> CMOS™	PowerTrench®	VCX™
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