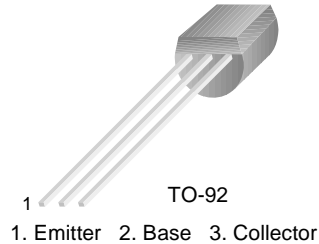


## KSP62/63/64

### Darlington Transistor

- Collector-Emitter Voltage:  $V_{CES}$ =KSP62: 20V  
KSP63/64: 30V
- Collector Power Dissipation:  $P_C$  (max)=625mW



### PNP Epitaxial Silicon Darlington Transistor

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage		
	: KSP62	-20	V
	: KSP63/64	-30	V
$V_{CEO}$	Collector-Emitter Voltage		
	: KSP62	-20	V
	: KSP63/64	-30	V
$V_{EBO}$	Emitter-Base Voltage	-10	V
$I_C$	Collector Current	-500	mA
$P_C$	Collector Power Dissipation	625	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55~150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CES}$	Collector-Emitter Breakdown Voltage	$I_C = -100\mu\text{A}, I_B = 0$			
	: KSP62		-20		V
	: KSP63/64		-30		V
$I_{CBO}$	Collector Cut-off Current				
	: KSP62	$V_{CB} = -15\text{V}, I_E = 0$		-100	nA
	: KSP63/64	$V_{CB} = -30\text{V}, I_E = 0$		-100	nA
$I_{EBO}$	Emitter Cut-off Current	$V_{BE} = -10\text{V}, I_C = 0$		-100	nA
$h_{FE}$	* DC Current Gain				
	: KSP62	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$	20K		
	: KSP63		5K		
	: KSP64		10K		
	: KSP63	$V_{CE} = -5\text{V}, I_C = -100\text{mA}$	10K		
	: KSP64		20K		
$V_{CE}(\text{sat})$	* Collector-Emitter Saturation Voltage				
	: KSP62	$I_C = -10\text{mA}, I_B = -0.01\text{mA}$		-1.0	V
	: KSP63/64	$I_C = -100\text{mA}, I_B = -0.1\text{mA}$		-1.5	V
$V_{BE}(\text{on})$	* Base-Emitter On Voltage				
	: KSP62	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$		-1.4	V
	: KSP63/64	$V_{CE} = -5\text{V}, I_C = -100\text{mA}$		-2	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = -5\text{V}, I_C = -100\text{mA}$ $f = 100\text{MHz}$	125		MHz

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

# Typical Characteristics

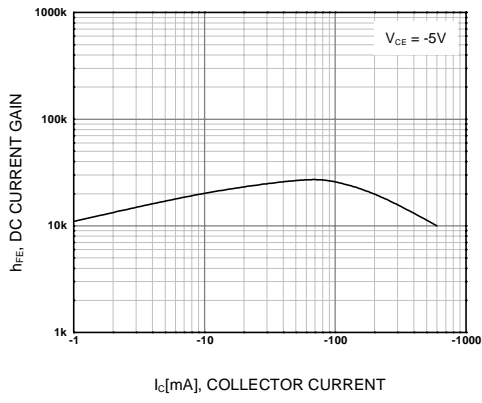


Figure 1. DC current Gain

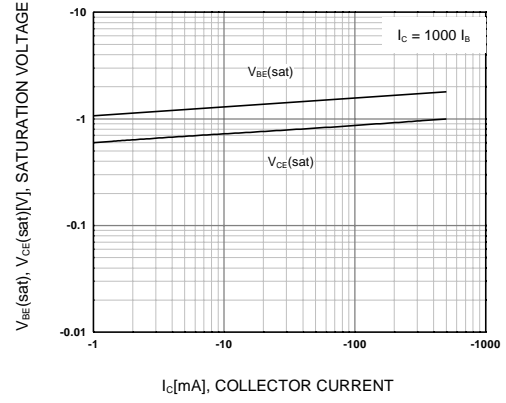


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

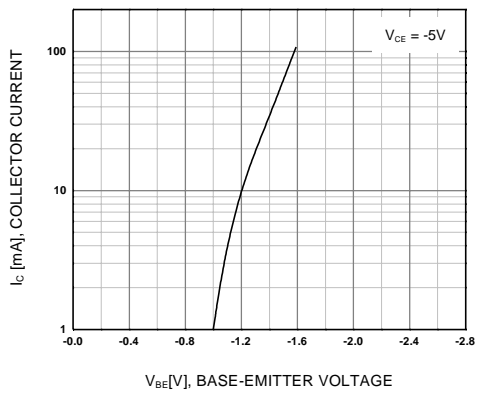


Figure 3. Base-Emitter On Voltage

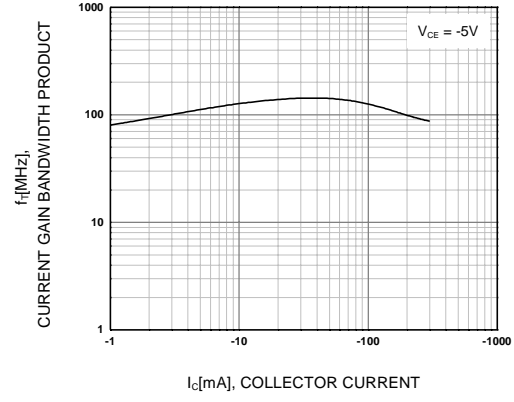
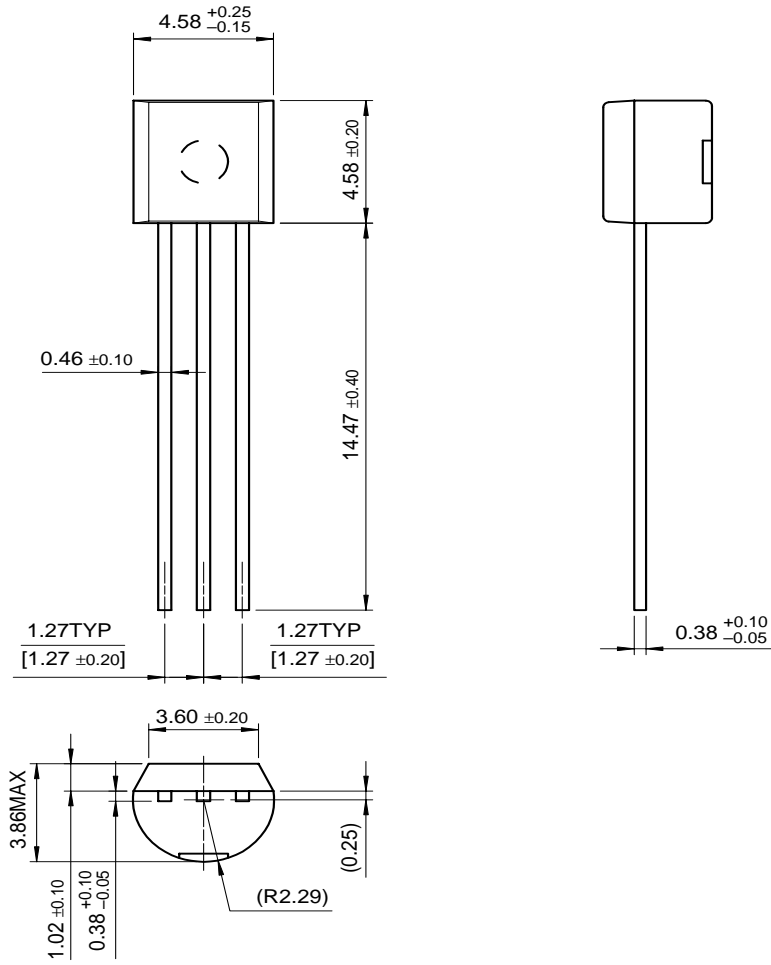


Figure 4. Current Gain Bandwidth Product

# Package Dimensions

KSP62/63/64

## TO-92



Dimensions in Millimeters

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