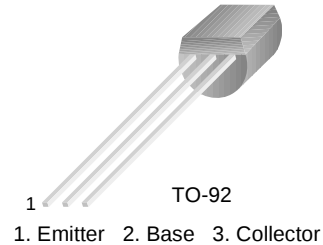


KSP5172

KSP5172

Amplifier Transistor

- Collector-Emitter Voltage: $V_{CEO}=25V$
- Collector Dissipation: $P_C (max)=625mW$



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	100	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_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10mA, I_B=0$	25			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=25V, I_E=0$			100	nA
I_{CES}	Collector Cut-off Current	$V_{CE}=25V, V_{BE}=0$			100	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE}=5V, I_C=0$			100	nA
h_{FE}	* DC Current Gain	$V_{CE}=10V, I_C=10mA$	100		500	
$V_{CE} (sat)$	Collector-Emitter Saturation Voltage	$I_C=10mA, I_B=1mA$			0.25	V
$V_{BE} (sat)$	Base-Emitter Saturation Voltage	$I_C=10mA, I_B=1mA$		0.75		V
f_T	Current Gain Bandwidth Product	$I_C=2mA, V_{CE}=5V$		120		MHz
$V_{BE} (on)$	Base-Emitter On Voltage	$I_C=10mA, V_{CE}=10V$	0.5		1.2	V

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

Typical Characteristics

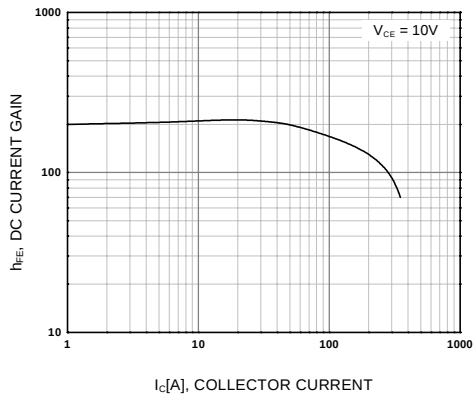


Figure 1. DC current Gain

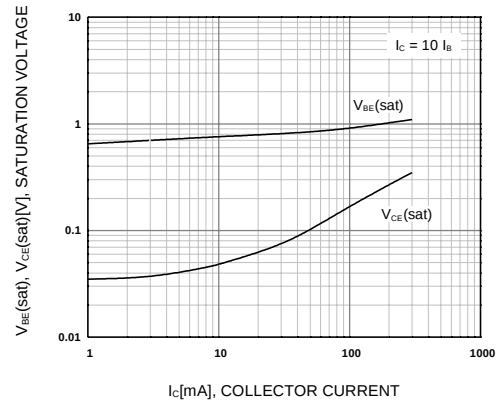


Figure 2. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

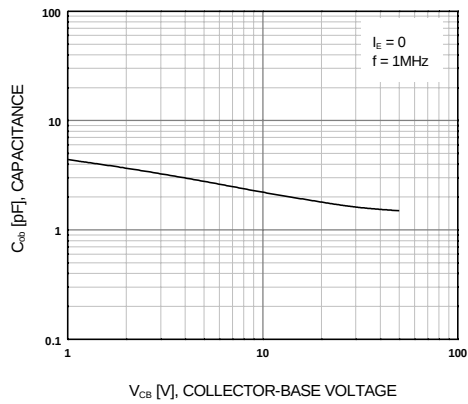


Figure 3. Output Capacitance

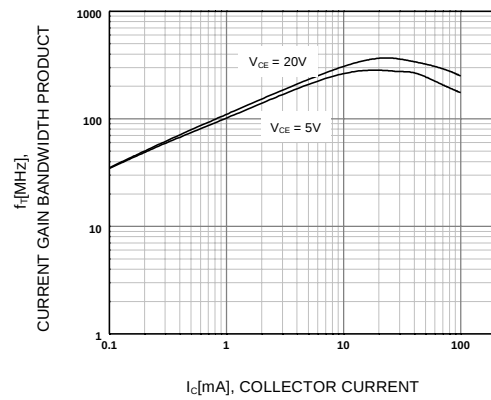


Figure 4. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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