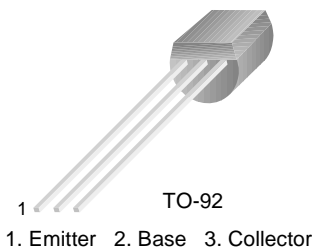


KSP8598/8599

Amplifier Transistor

- Collector-Emitter Voltage: V_{CE0} = KSP8598: 60V
KSP8599: 80V
- Collector Power Dissipation: P_C (max)=625mW
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



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	: KSP8598	-60
		: KSP8599	-80
V_{CE0}	Collector-Emitter Voltage	: KSP8598	-60
		: KSP8599	-80
V_{EBO}	Emitter-Base Voltage	-5	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_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}, I_E = 0$	-60		V
			-80		V
BV_{CE0}	* Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	-60		V
			-80		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}, I_C = 0$	-5		V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -60\text{V}, I_E = 0$ $V_{CB} = -80\text{V}, I_E = 0$		-100	nA
				-100	nA
I_{CEO}	Collector Cut-off Current	$V_{CE} = -60\text{V}, I_B = 0$		-100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -4\text{V}, I_C = 0$		-100	nA
h_{FE}	* DC Current Gain	$V_{CE} = -5\text{V}, I_C = -1\text{mA}$ $V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $V_{CE} = -5\text{V}, I_C = -100\text{mA}$	100	300	
			100		
			75		
$V_{CE}(\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C = -100\text{mA}, I_B = -5\text{mA}$ $I_C = -100\text{mA}, I_B = -10\text{mA}$		-0.4	V
				-0.3	V
$V_{BE}(\text{on})$	* Base-Emitter On Voltage	$V_{CE} = -5\text{V}, I_C = -1\text{mA}$ $V_{CE} = -5\text{V}, I_C = -10\text{mA}$	-0.5	-0.7	V
			-0.6	-0.8	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$	150		MHz
C_{ob}	Output Capacitance	$V_{CB} = -5\text{V}, I_E = 0$ $f = 1\text{MHz}$		8	pF

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

Typical Characteristics

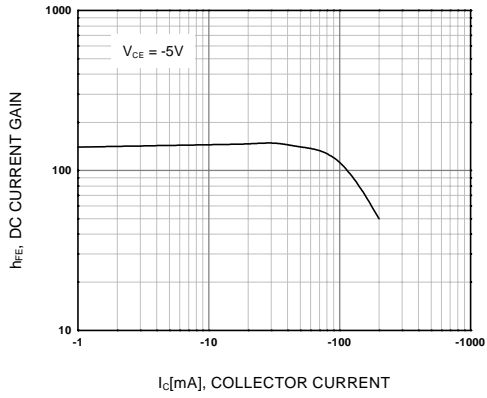


Figure 1. DC current Gain

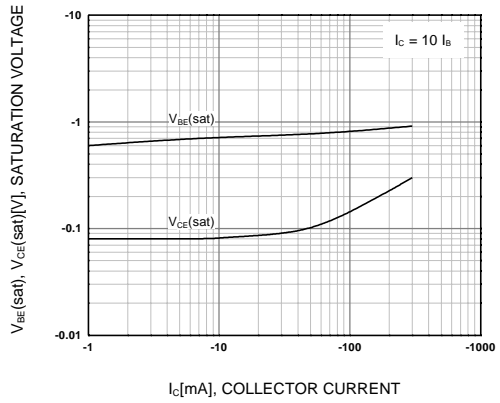


Figure 2. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

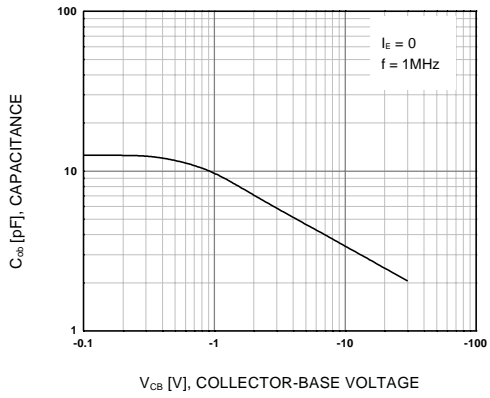


Figure 3. Output Capacitance

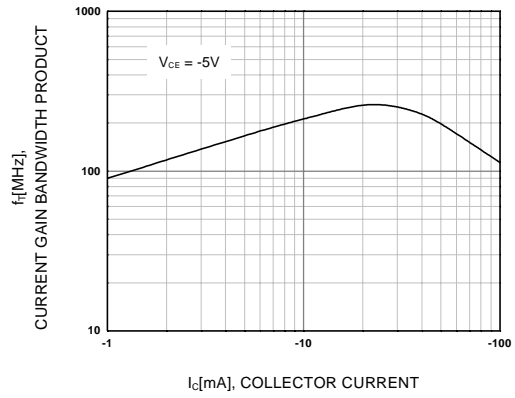


Figure 4. Current Gain Bandwidth Product

Package Dimensions

TO-92

KSP8598/8599



Dimensions in Millimeters

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