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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



KSP8098/8099

Amplifier Transistor

- Collector-Emitter Voltage: V_{CE0} = KSP8098: 60V
KSP8099: 80V
- Collector Power Dissipation: P_C (max)=625mW
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units	
V_{CBO}	Collector-Base Voltage	: KSP8098	60	V
		: KSP8099	80	V
V_{CE0}	Collector-Emitter Voltage	: KSP8098	60	V
		: KSP8099	80	V
V_{EBO}	Emitter-Base Voltage	6	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	$I_C=100\mu\text{A}, I_E=0$: KSP8098	60	V
			: KSP8099	80	V
BV_{CE0}	* Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}, I_B=0$: KSP8098	60	V
			: KSP8099	80	V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}, I_C=0$	6		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	$V_{EB}=6\text{V}, I_C=0$		100	nA
h_{FE}	DC Current Gain	$V_{CE}=5\text{V}, I_C=1\text{mA}$	100	300	
		$V_{CE}=5\text{V}, I_C=10\text{mA}$	100		
		$V_{CE}=5\text{V}, I_C=100\text{mA}$	75		
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=100\text{mA}, I_B=5\text{mA}$		0.4	V
		$I_C=100\text{mA}, I_B=10\text{mA}$		0.3	V
$V_{BE}(\text{on})$	* Base-Emitter On Voltage	$V_{CE}=5\text{V}, I_C=1\text{mA}$	0.5	0.7	V
		$V_{CE}=5\text{V}, I_C=10\text{mA}$	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	$V_{CB}=5\text{V}, I_E=0$ $f=1\text{MHz}$		6	pF

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

Typical Characteristics

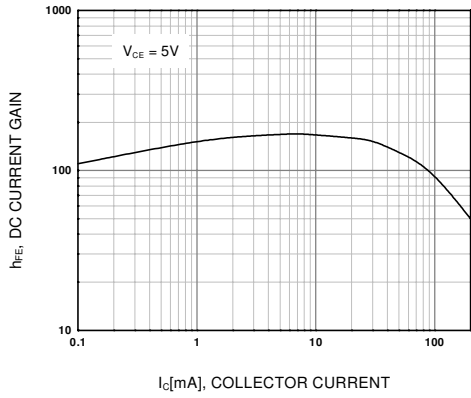


Figure 1. DC current Gain

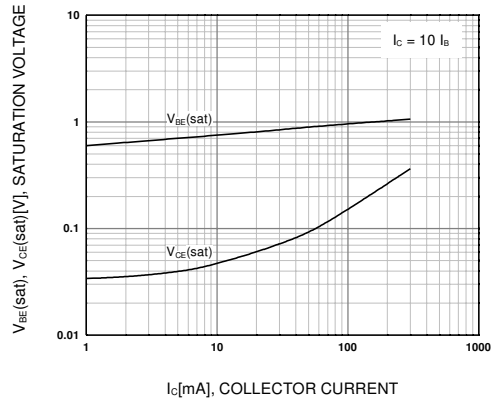


Figure 2. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

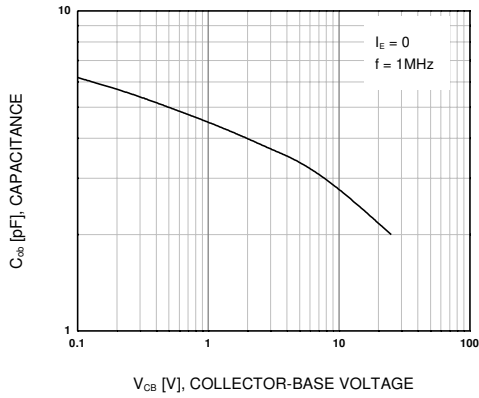


Figure 3. Output Capacitance

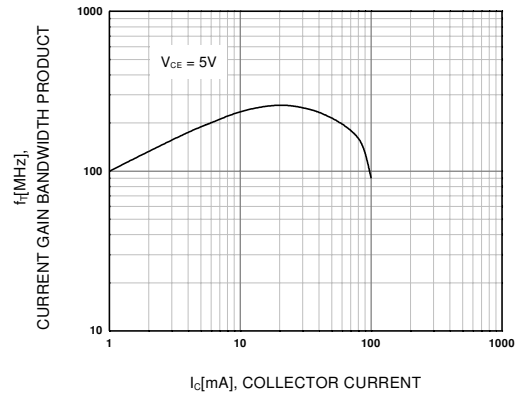
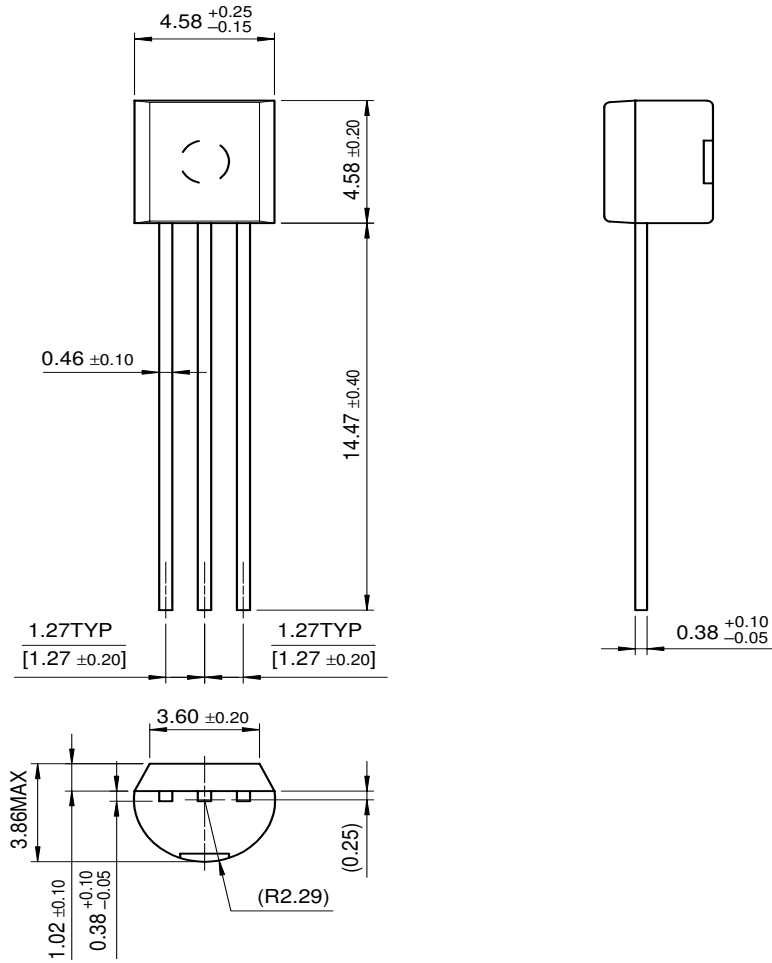


Figure 4. Current Gain Bandwidth Product

Package Dimensions

TO-92

KSP8098/8099



Dimensions in Millimeters

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