

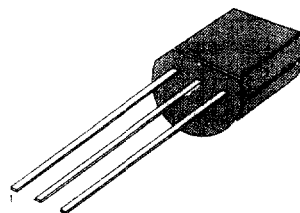
AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage: V_{CE0} KSP8098: 60V
KSP8099: 80V
- Collector Dissipation: P_C (max)=625mW

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
KSP8098		80	V
KSP8099			
Collector-Emitter Voltage	V_{CEO}	60	V
KSP8098		80	V
KSP8099			
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

TO-92



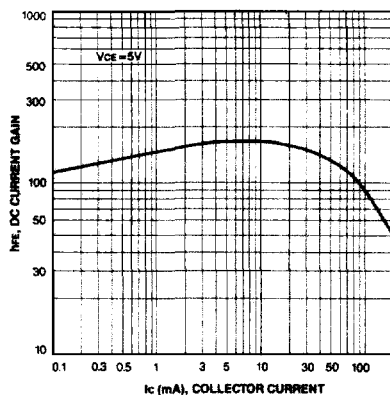
1. Emitter 2. Base 3. Collector

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

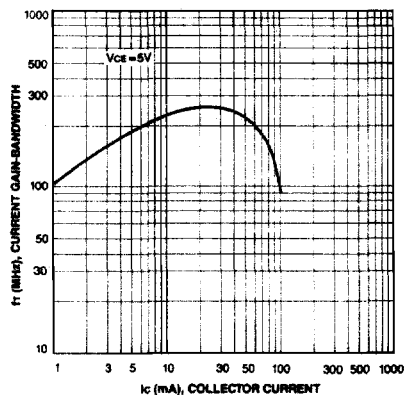
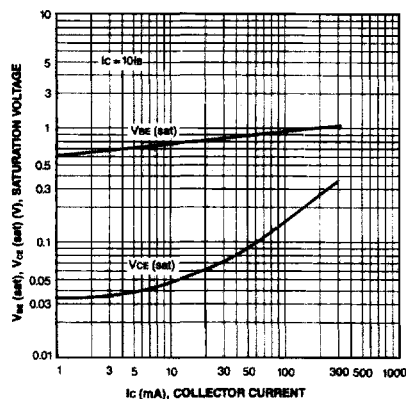
Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu\text{A}, I_E=0$			
:KSP8098			60		V
:KSP8099			80		V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=10\text{mA}, I_B=0$			
:KSP8098			60		V
:KSP8099			80		V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu\text{A}, I_C=0$	6		V
Collector Cut-off Current	I_{CBO}				
:KSP8098		$V_{CB}=60\text{V}, I_E=0$		100	nA
:KSP8099		$V_{CB}=80\text{V}, I_E=0$		100	nA
Collector Cut-off Current	I_{CEO}	$V_{EB}=60\text{V}, I_B=0$		100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=6\text{V}, I_C=0$		100	nA
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}, I_C=1\text{mA}$	100	300	
		$V_{CE}=5\text{V}, I_C=10\text{mA}$	100		
		$V_{CE}=5\text{V}, I_C=100\text{mA}$	75		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$		0.4	V
		$I_C=100\text{mA}, I_B=10\text{mA}$		0.3	V
*Base-Emitter On Voltage	$V_{BE(on)}$				
:KSP8098		$V_{CE}=5\text{V}, I_C=1\text{mA}$	0.5	0.7	V
:KSP8099		$V_{CE}=5\text{V}, I_C=10\text{mA}$	0.6	0.8	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$	150		MHz
Output Capacitance	C_{OB}	$V_{CB}=5\text{V}, I_E=0$ $f=1\text{MHz}$		6	pF

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

DC CURRENT GAIN



CURRENT GAIN-BANDWIDTH PRODUCT

COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE

OUTPUT CAPACITANCE

