

KSP05/06

PNP EPITAXIAL SILICON TRANSISTOR

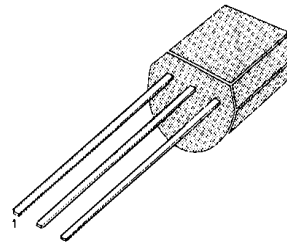
AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage: V_{CE0} = KSP05: 60V
KSP06: 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
	:KSP05	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
	:KST05	80	V
	:KST06	4	V
Emitter-Base Voltage	V_{EBO}	500	mA
Collector Current	I_C	625	mW
Collector Dissipation	P_C	150	$^\circ\text{C}$
Junction Temperature	T_J	-55~150	$^\circ\text{C}$
Storage Temperature	T_{STG}		

TO-92



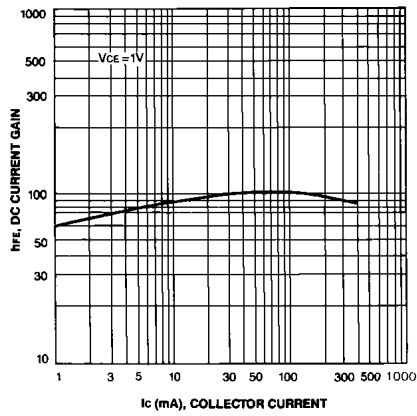
1. Emitter 2. Base 3. Collector

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

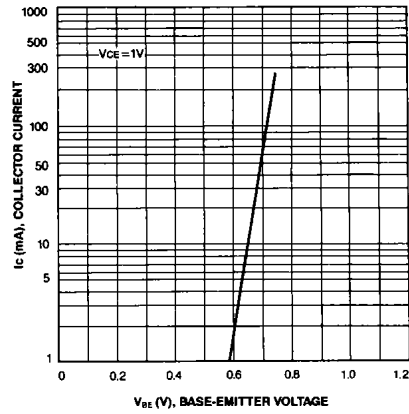
Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$, $I_B=0$	60		V
	:KSP05		80		V
	:KSP06		4		V
Collector-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=60\text{V}$, $I_E=0$		0.1	μA
	:KSP05	$V_{CB}=80\text{V}$, $I_E=0$		0.1	μA
	:KSP06	$V_{CE}=60\text{V}$, $I_B=0\text{V}$		0.1	μA
Collector Cut-off Current	I_{CEO}	$V_{CE}=1\text{V}$, $I_C=10\text{mA}$	50		
DC Current Gain	h_{FE}	$V_{CE}=1\text{V}$, $I_C=100\text{mA}$	50		
Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=100\text{mA}$, $I_B=10\text{mA}$		0.25	V
Base-Emitter On Voltage	$V_{BE}(\text{sat})$	$V_{CE}=1\text{V}$, $I_C=100\text{mA}$		1.2	V
Current Gain Bandwidth Product	f_T	$V_{CE}=2\text{V}$, $I_C=10\text{mA}$ $f=100\text{MHz}$	100		MHz

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

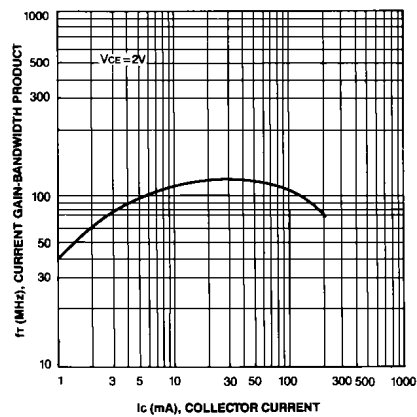
DC CURRENT GAIN



BASE-EMITTER ON VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT

COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE