

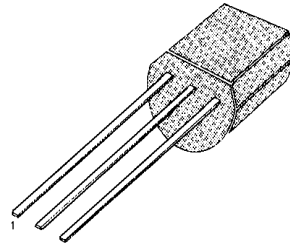
KSP44/45**NPN EPITAXIAL SILICON TRANSISTOR****HIGH VOLTAGE TRANSISTOR**

- Collector-Emitter Voltage: V_{CE0} =KSP44: 400V
KSP45: 350V
- Collector Dissipation: $P_C(\text{max})$ =625mW

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

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	500	V
:KST44		400	V
:KST45			
Collector-Emitter Voltage	V_{CEO}	500	V
:KST44		400	V
:KST45			
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	300	mA
Collector Dissipation ($T_A=25^\circ\text{C}$)	P_C	625	mW
Collector Dissipation ($T_C=25^\circ\text{C}$)	P_C	1.5	W
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}	$I_C=100\mu\text{A}$, $I_B=0$	500		V
:KST44			400		V
:KST45					
* Collector -Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$, $I_B=0$	500		V
:KST44			400		V
:KST45					
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	6		V
Collector Cut-off Current	I_{CBO}	$V_{CB}=400\text{V}$, $I_E=0$		0.1	μA
:KST44		$V_{CB}=320\text{V}$, $I_E=0$		0.1	μA
:KST45					
Collector Cut-off Current	I_{CES}	$V_{CE}=400\text{V}$, $I_B=0$		0.5	μA
:KST44		$V_{CE}=320\text{V}$, $I_B=0$		0.5	μA
:KST45					
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4\text{V}$, $I_C=0$		0.1	μA
* DC Current Gain	h_{FE}	$V_{CE}=10\text{V}$, $I_C=1\text{mA}$	40		
		$V_{CE}=10\text{V}$, $I_C=10\text{mA}$	50	200	
		$V_{CE}=10\text{V}$, $I_C=50\text{mA}$	45		
		$V_{CE}=10\text{V}$, $I_C=100\text{mA}$	40		
* Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=1\text{mA}$, $I_B=0.1\text{mA}$		0.4	V
		$I_C=10\text{mA}$, $I_B=1\text{mA}$		0.5	V
		$I_C=50\text{mA}$, $I_B=5\text{mA}$		0.75	V
* Base-Emitter Saturation Voltage	$V_{BE}(\text{sat})$	$I_C=10\text{mA}$, $I_B=1\text{mA}$		0.75	V
Output Capacitance	C_{OB}	$V_{CB}=20\text{V}$, $I_E=0$ $f=1\text{MHz}$		7	pF

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

