

TO-92S Plastic-Encapsulate Transistors

KSA1150 TRANSISTOR (PNP)

FEATURES

- General Purpose Switching Application

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	416	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

TO - 92S

1. EMITTER
2. COLLECTOR
3. BASE



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\text{mA}, I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.1\text{mA}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-25\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-3\text{V}, I_C=0$			-0.1	μA
DC current gain	h_{FE}^*	$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	40		400	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-1.3	V
Transition frequency	f_T	$V_{CE}=-6\text{V}, I_C=-20\text{mA}, f=30\text{MHz}$	150			MHz

*Pulse test: pulse width $\leq 350\mu\text{s}$, duty cycles $\leq 2.0\%$.

CLASSIFICATION OF h_{FE}

RANK	R	O	Y	G
RANGE	40-80	70-140	120-240	200-400