

## TO-92 Plastic-Encapsulate Transistors

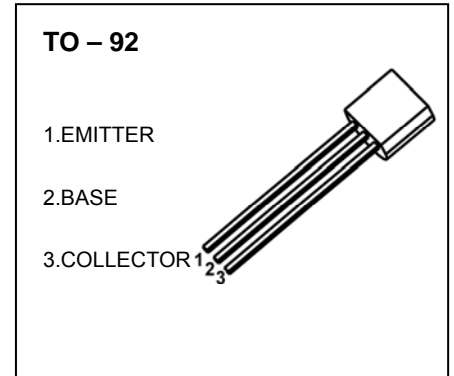
### KSA642 TRANSISTOR (PNP)

#### FEATURES

- General Purpose Amplifier Transistor

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

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-30	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-0.3	A
$P_C$	Collector Power Dissipation	400	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	312	$^\circ\text{C}/\text{W}$
$T_j$	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 specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\text{mA}, I_E=0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.01\text{mA}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-25\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-3\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE}^*$	$V_{CE}=-1\text{V}, I_C=-50\text{mA}$	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-0.3\text{A}, I_B=-30\text{mA}$			-0.6	V

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

#### CLASSIFICATION OF $h_{FE}$

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