

## TO-92 Plastic-Encapsulate Transistors

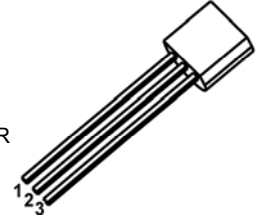
### 2SA1625 TRANSISTOR (PNP)

#### FEATURES

- High Voltage
- High Speed Switching
- Low Collector Saturation Voltage

#### TO - 92

1. EMITTER
2. COLLECTOR
3. BASE



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

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-400	V
$V_{CEO}$	Collector-Emitter Voltage	-400	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current	-500	mA
$P_C$	Collector Power Dissipation	750	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	166	$^{\circ}\text{C}/\text{W}$
$T_j$	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	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.1\text{mA}, I_C = 0$	-7			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -400\text{V}, I_E = 0$			-10	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{V}, I_C = 0$			-10	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	40		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$			-1.2	V
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			20	pF
Transition frequency	$f_T$	$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	20			MHz

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

RANK	M	L	K
RANGE	40-80	60-120	100-200