

TO-92 Plastic-Encapsulate Transistors

ALJA1300 PNP Transistors

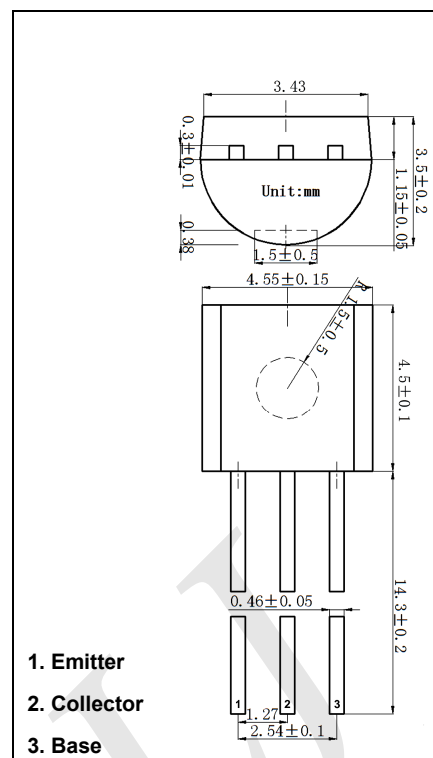
Features

- High DC Current Gain and Excellent h_{FE} Linearity
- Low Saturation Voltage

Marking: ALJA1300

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	-20	V
V_{CEO}	Collector Emitter Voltage	-10	V
V_{EBO}	Emitter Base Voltage	-6	V
I_C	Collector Current	-2	A
P_C	Collector Power Dissipation	750	mW
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)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = -1\text{mA}$, $I_E = 0$	-20			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -10\text{mA}$, $I_B = 0$	-10			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -1\text{mA}$, $I_C = 0$	-6			V
I_{CBO}	Collector cut-off current	$V_{CB} = -20\text{V}$, $I_E = 0$			-100	nA
I_{EBO}	Emitter cut-off current	$V_{EB} = -6\text{V}$, $I_C = 0$			-100	nA
$h_{FE(1)}$	DC current gain	$V_{CE} = -1\text{V}$, $I_C = -0.5\text{A}$	140		600	
$h_{FE(2)}$		$V_{CE} = -5\text{V}$, $I_C = -1\text{mA}$	140			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = -2\text{A}$, $I_B = -100\text{mA}$			-0.82	V
V_{BE}	Base-emitter voltage	$I_C = -2\text{A}$, $V_{CE} = -1\text{V}$			-1.5	V
f_T	Transition frequency	$V_{CE} = -1\text{V}$, $I_C = -0.5\text{A}$, $f = 30\text{MHz}$		140		MHz
C_{ob}	Collector Output Capacitance	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		50		pF

Classification OF $h_{FE(2)}$

Rank	Y	GR	BL
Range	140-280	200-400	300-600

Typical Characteristics

