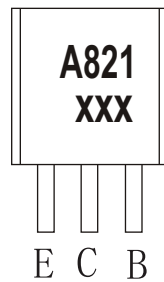


2SA821 TRANSISTOR (PNP)

FEATURES

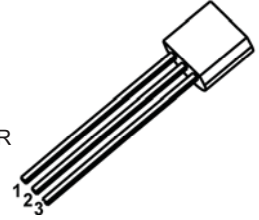
- High Breakdown Voltage
- Low Transition Frequency

MARKING

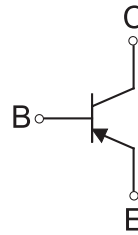


TO - 92

1. EMITTER
2. COLLECTOR
3. BASE



Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SA821	TO-92	Bulk	1000pcs/Bag

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

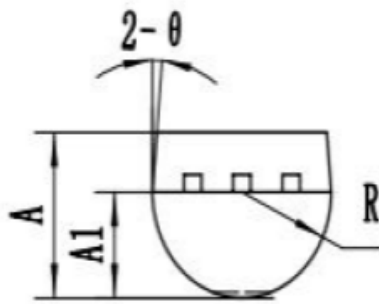
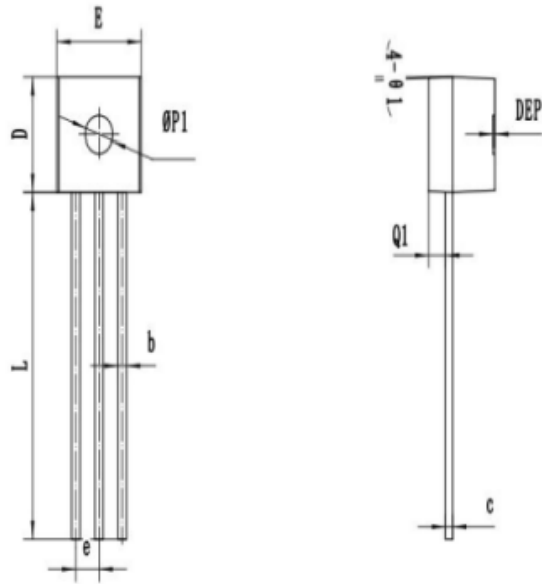
Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-210	V
V_{CE0}	Collector-Emitter Voltage	-210	V
V_{EB0}	Emitter-Base Voltage	-5	V
I_c	Collector Current -Continuous	-0.03	A
P_D	Collector Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	$^{\circ}\text{C} / \text{W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

$T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.05\text{mA}, I_E=0$	-210			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-0.1\text{mA}, I_B=0$	-210			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.05\text{mA}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-150\text{V}, I_E=0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4.5\text{V}, I_C=0$			-1	μA
DC current gain	h_{FE}	$V_{CE}=-3\text{V}, I_C=-5\text{mA}$	56		270	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-2\text{mA}, I_B=-0.2\text{mA}$			-0.6	V
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		8		pF
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-2\text{mA}$		50		MHz

CLASSIFICATION OF h_{FE}

RANK	N	P	Q
RANGE	56-120	82-180	120-270



SYMBOL	MM		
	MIN	NOM	MAX
*A	3.00	3.25	3.50
A1	2.20	2.30	2.40
*b	0.40	0.45	0.50
*c	0.25	0.30	0.35
*D	4.50	4.60	4.70
*E	4.50	4.60	4.70
*e	1.22	1.27	1.32
*L	14.00	14.30	14.60
R	2.20	2.30	2.40
Q1	0.85	0.90	0.95
θ	3°	5°	7°
Ø1	1°	3°	5°
ØP1	1.40	1.50	1.60
DEP	0.05	0.10	0.20
带*为检验尺寸			