JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92S Plastic-Encapsulate Transistors

TO – 92S

1. EMITTER
2. COLLECTOR
3. BASE

2SA821S TRANSISTOR (PNP)

FEATURES

- High Breakdown Voltage

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-210	V
V_{CEO}	Collector-Emitter Voltage	-210	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.03	A
P_C	Collector Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

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

CLASSIFICATION OF h_{FE}

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

A,Dec,2010