

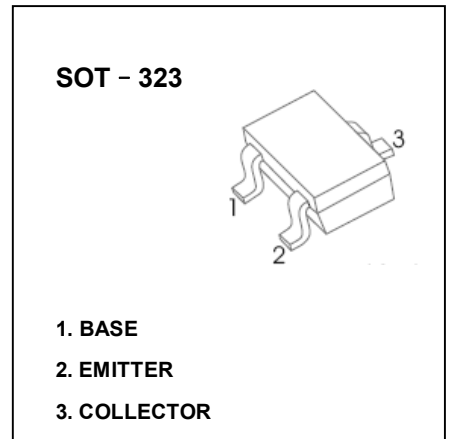
## TRANSISTOR(PNP)

### FEATURES

- High DC Current Gain
- Complementary to 2SD1819A

### APPLICATIONS

- General Purpose Amplification



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

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-45	V
$V_{CEO}$	Collector-Emitter Voltage	-45	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current	-100	mA
$P_C$	Collector Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	833	$^{\circ}\text{C/W}$
$T_j$	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	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-45			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-2\text{mA}, I_B=0$	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-7			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-20\text{V}, I_E=0$			-100	nA
Collector cut-off current	$I_{CEO}$	$V_{CE}=-10\text{V}, I_B=0$			-100	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$			-100	nA
DC current gain	$h_{FE}$	$V_{CE}=-10\text{V}, I_C=-2\text{mA}$	160		460	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B=-10\text{mA}$			-0.5	V
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_E=1\text{mA}, f=200\text{MHz}$		80		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		2.7		pF

### CLASSIFICATION OF $h_{FE}$

RANK	Q	R	S
RANGE	160 - 260	210 - 340	290 - 460
MARKING	BQ1	BR1	BS1