

TRANSISTOR(PNP)

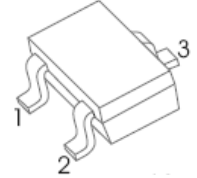
FEATURES

- High DC Current Gain
- Complementary to 2SD1819A

APPLICATIONS

- General Purpose Amplification

SOT - 323



1. BASE
2. EMITTER
3. COLLECTOR

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

Symbol	Parameter	Value	Unit
V_{CBO}	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	μA
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