

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## APPLICATIONS

- General Purpose Amplification

## FEATURES

- High DC Current Gain
- Complementary to 2SD1819A

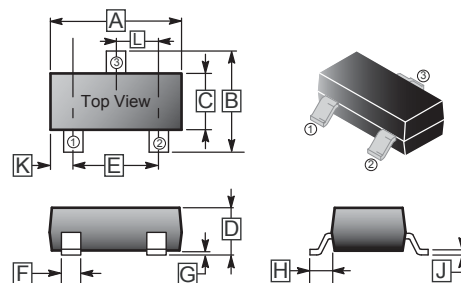
## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SB1218A-Q	2SB1218A-R	2SB1218A-S
Range	160~260	210~340	290~460
Marking	BQ1	BR1	BS1

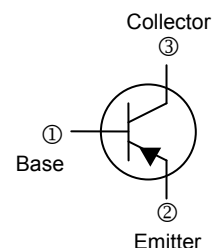
## PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-323	3K	7' inch

## SOT-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			



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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	$V_{CBO}$	-45	V
Collector-Emitter Voltage	$V_{CEO}$	-45	V
Emitter-Base Voltage	$V_{EBO}$	-7	V
Collector Current	$I_C$	-100	mA
Collector Power Dissipation	$P_C$	150	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	833	$^\circ\text{C} / \text{W}$
Junction & Storage temperature	$T_J, T_{STG}$	150, -55 ~ 150	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-45	-	-	V	$I_C = -10\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-45	-	-	V	$I_C = -2\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-7	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$	-	-	-100	nA	$V_{CB} = -20\text{V}, I_E = 0$
Collector Cut-Off Current	$I_{CEO}$	-	-	-100	$\mu\text{A}$	$V_{EB} = -10\text{V}, I_B = 0$
Emitter Cut-off Current	$I_{EBO}$	-	-	-100	nA	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	$h_{FE}$	160	-	460		$V_{CE} = -10\text{V}, I_C = -2\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -100\text{mA}, I_B = -10\text{mA}$
Transition Frequency	$f_T$	-	80	-	MHz	$V_{CE} = -10\text{V}, I_E = 1\text{mA}, f = 200\text{MHz}$
Collector Output Capacitance	$C_{ob}$	-	2.7	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$