

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

## FEATURES

- High Voltage and Current.
- High DC Current Gain.
- Complementary to 2SC4738.

## Application

- General Purpose Amplification.

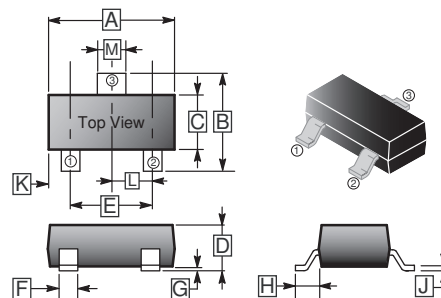
## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SC4618-N	2SC4618-P	2SC4618-Q
Range	56~120	82~180	120~270
Marking	AN	AP	AQ

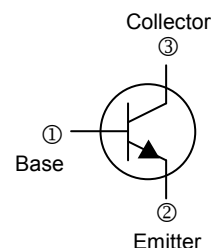
## PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-523	3K	7' inch

## SOT-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.5	1.7	G	-	0.1
B	1.45	1.75	H	-	0.55 REF.
C	0.75	0.85	J	0.1	0.2
D	0.7	0.9	K	-	-
E	0.9	1.1	L	-	0.5 TYP.
F	0.15	0.25	M	0.25	0.325



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

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	40	V
Collector to Emitter Voltage	$V_{CEO}$	25	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	50	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	$V_{(BR)CBO}$	40	-	-	V	$I_C=50\mu\text{A}, I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	25	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=50\mu\text{A}, I_C=0$
Collector cut-off current	$I_{CBO}$	-	-	0.5	$\mu\text{A}$	$V_{CB}=24\text{V}, I_E=0$
Emitter cut-off current	$I_{EBO}$	-	-	0.5	$\mu\text{A}$	$V_{EB}=3\text{V}, I_C=0$
DC current gain	$h_{FE}$	56	-	270		$V_{CE}=6\text{V}, I_C=1\text{mA}$
Collector-emitter saturation voltage *	$V_{CE(sat)}$	-	-	0.3	V	$I_C=10\text{mA}, I_B=1\text{mA}$
Transition frequency	$f_T$	150	-	-	MHz	$V_{CE}=6\text{V}, I_C=1\text{mA}, f=100\text{MHz}$
Collector output capacitance	$C_{ob}$	-	-	2.2	pF	$V_{CB}=6\text{V}, I_E=0, f=1\text{MHz}$

**CHARACTERISTIC CURVES**

