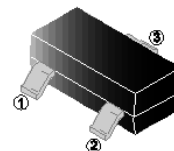


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

### FEATURES

- Ideal for Medium Power Amplification and Switching
- Capable of 200mWatts of Power Dissipation
- Surface Mount SOT-23 Package

**SOT-23**



### MARKING

J6

### CLASSIFICATION OF $h_{FE}$

Product-Rank	S9014-L-C	S9014-H-C
Range	200~450	450~1000

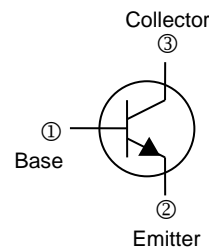
### PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

### ORDER INFORMATION

Part Number	Type
S9014-□-C	Lead (Pb)-free and Halogen-free

\*□= $h_{FE}$  Rank



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

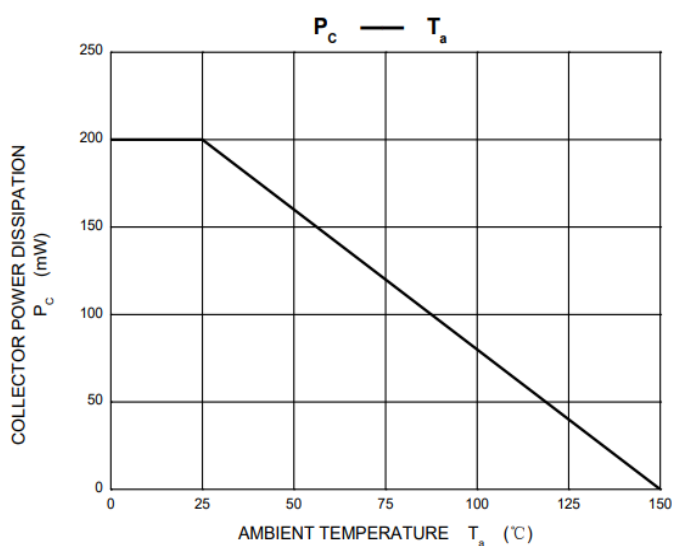
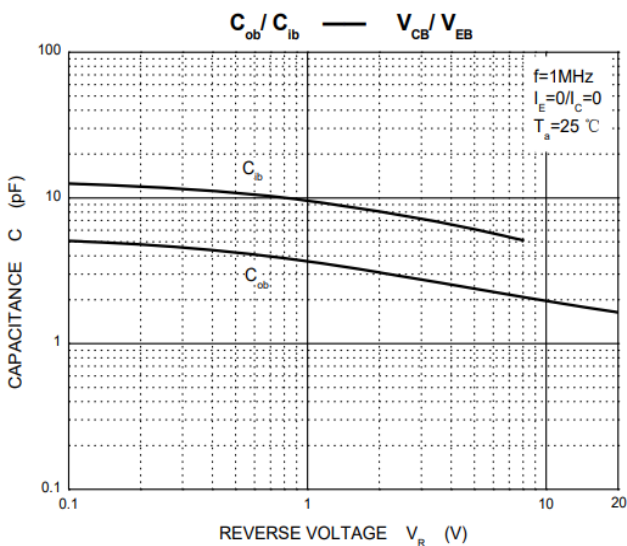
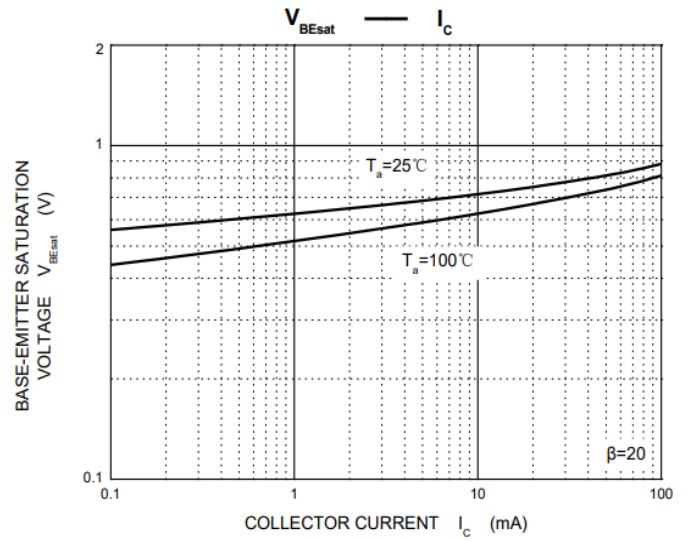
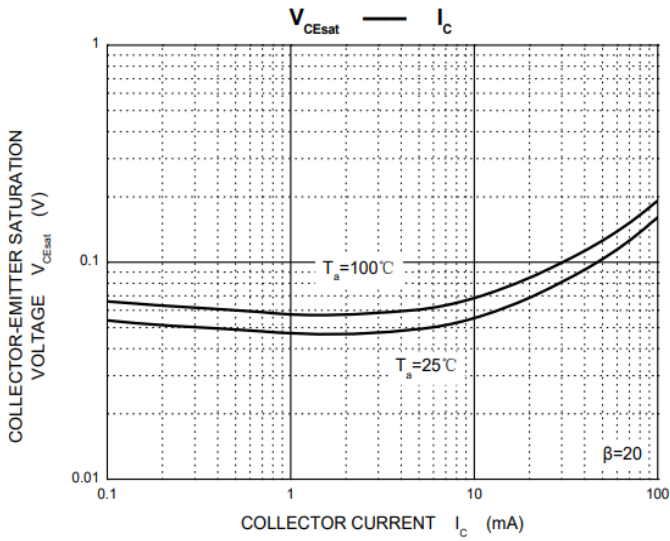
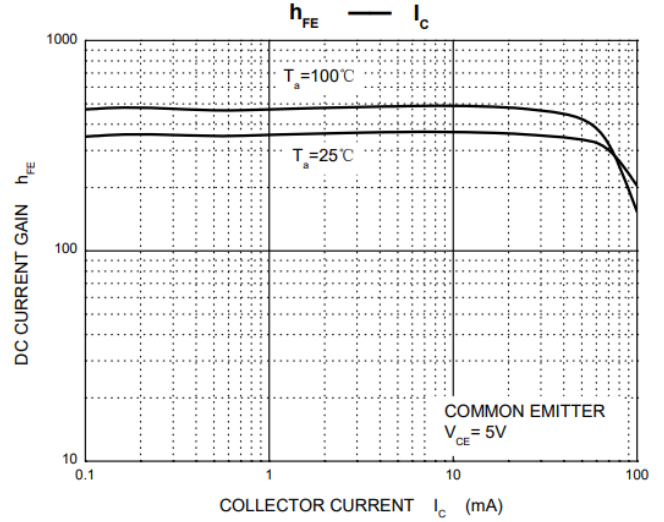
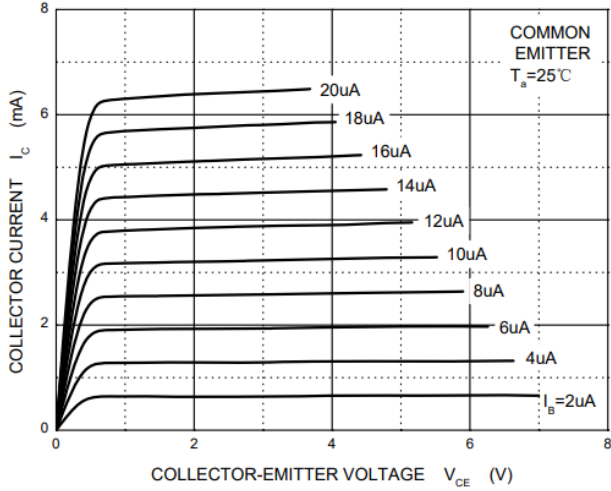
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	45	
Emitter-Base Voltage	$V_{EBO}$	5	
Collector Current	$I_C$	0.1	A
Collector Power Dissipation	$P_C$	200	mW
Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
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	$V_{(BR)CBO}$	50	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	45	-	-		$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-		$I_E=100\mu\text{A}, I_C=0$
Collector Cut-off Current	$I_{CBO}$	-	-	100	nA	$V_{CB}=50\text{V}, I_E=0$
Collector Cut-off Current	$I_{CEO}$	-	-	1	$\mu\text{A}$	$V_{CE}=35\text{V}, I_B=0$
Emitter Cut-off Current	$I_{EBO}$	-	-	100	nA	$V_{EB}=3\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	200	-	1000		$V_{CE}=5\text{V}, I_C=1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.3	V	$I_C=100\text{mA}, I_B=5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1		
Transition Frequency	$f_T$	-	150	-	MHz	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=30\text{MHz}$

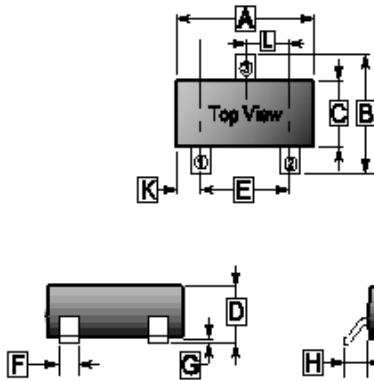
**CHARACTERISTICS CURVE**

Static Characteristic



**PACKAGE OUTLINE DIMENSIONS**

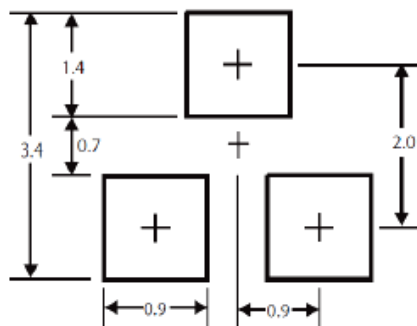
**SOT-23**



REF.	Millimeter	
	Min.	Max.
A	2.65	3.10
B	2.10	3.00
C	1.10	1.80
D	0.89	1.40
E	1.70	2.30
F	0.28	0.55
G	-	0.18
H	0.55 REF.	
J	0.05	0.26
K	0.60 REF.	
L	0.95 TYP.	

**MOUNTING PAD LAYOUT**

**SOT-23**



\*Dimensions in millimeters