

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

## FEATURE

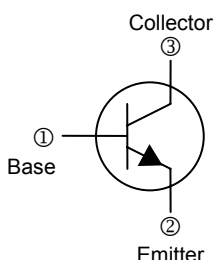
Complementary to S9015W

## PACKAGING INFORMATION

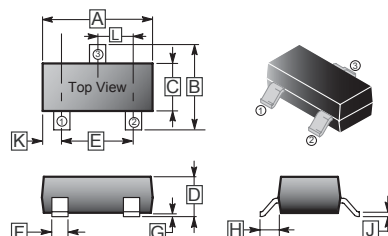
Weight: 0.0074 g

## MARKING CODE

J6



## 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			

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

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	50	V
Collector to Emitter Voltage	$V_{CEO}$	45	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current – Continuous	$I_C$	100	mA
Collector Power Dissipation	$P_C$	200	mW
Junction, Storage Temperature	$T_J, T_{STG}$	+150, -55 ~ +150	$^\circ\text{C}$

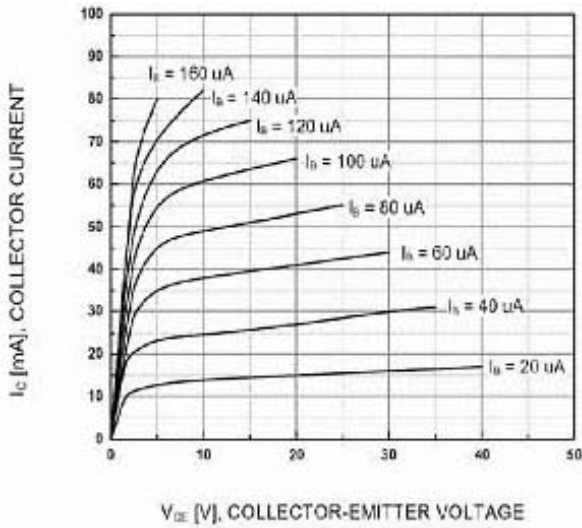
## ELECTRICAL CHARACTERISTICS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

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	-	-	V	$I_C = 0.1\text{mA}, I_B = 0$
Emitter-base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E = 100\mu\text{A}, I_C = 0$
Collector Cut-off Current	$I_{CBO}$	-	-	100	nA	$V_{CB} = 50\text{V}, I_E = 0$
Collector Cut-off Current	$I_{CEO}$	-	-	100	nA	$V_{CE} = 35\text{V}, I_B = 0$
Emitter Cut-off Current	$I_{EBO}$	-	-	100	nA	$V_{EB} = 3\text{V}, I_C = 0$
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	-	-	300	mV	$I_C = 100\text{mA}, I_B = 5\text{mA}$
Base-emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1000	mV	$I_C = 100\text{mA}, I_B = 5\text{mA}$
DC Current Gain	$h_{FE}$	200	-	1000		$V_{CE} = 5\text{V}, I_C = 1\text{mA}$
Transition Frequency	$f_T$	150	-	-	MHz	$V_{CE} = 5\text{V}, I_C = 10\text{mA}, f = 30\text{MHz}$

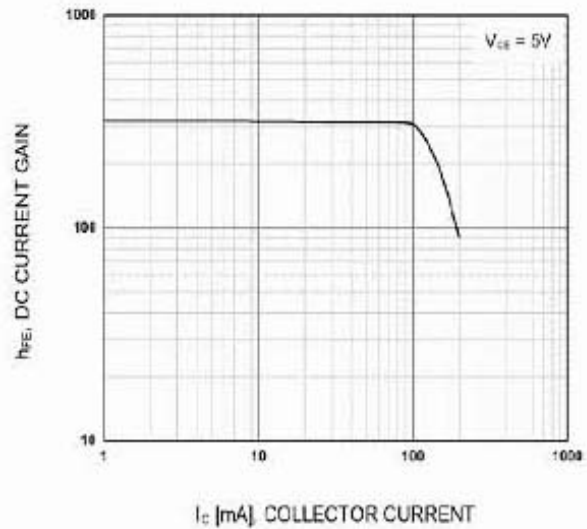
## CLASSIFICATION OF $h_{FE}$

Rank	L	H
$h_{FE}$	200 - 450	450 - 1000

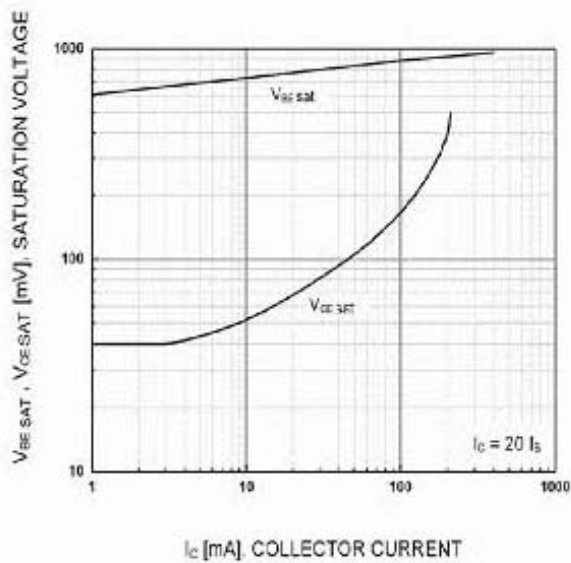
**CHARACTERISTIC CURVES**



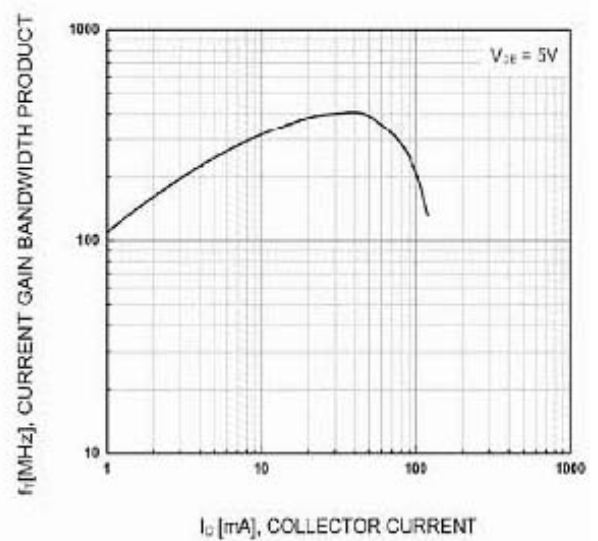
**Static Characteristic**



**DC current Gain**



**Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Current Gain Bandwidth Product**