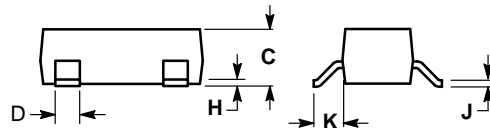
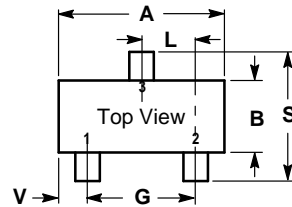
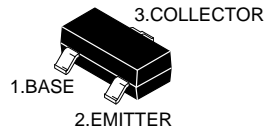


A suffix of "-C" specifies halogen & lead-free



SOT-23		
Dim	Min	Max
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600
All Dimension in mm		

## FEATURES

- Excellent linearity of DC forward current gain
- RoHS Compliant Product
- Low collector to emitter saturation voltage  
 $V_{CE(sat)} = 0.3V$  max (@ $I_C=100mA, I_B=10mA$ )

## MAXIMUM RATINGS\* $T_A=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	50	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	0.2	A
$P_C$	Collector Dissipation	150	mW
$T_J, T_{stg}$	Junction and Storage Temperature	125, -55~125	$^\circ C$

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=100\mu A, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=50V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=6V, I_C=1mA$	150		800	
	$h_{FE(2)}$	$V_{CE}=6V, I_C=0.1mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$			1	V
Transition frequency	$f_T$	$V_{CE}=6V, I_C=10mA$	180			MHz
Collector output capacitance	$C_{ob}$	$V_{CE}=6V, I_E=0, f=1MHz$			4	pF
Noise figure	NF	$V_{CE}=6V, I_E=-0.1mA, f=1KHz, R_G=2K\Omega$			15	dB

## CLASSIFICATION OF $h_{FE}$

Marking	LE	LF	LG
Rank	E	F	G
Range	150-300	250-500	400-800

TYPICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

