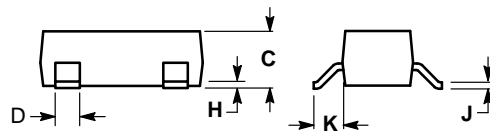
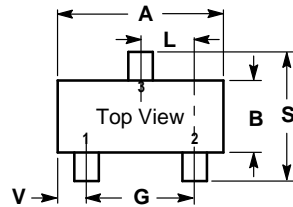
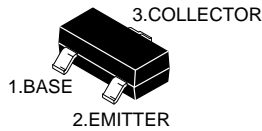


A suffix of "-C" specifies halogen & lead-free

FEATURES

- Power Dissipation
- RoHS Compliant Product



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		

MAXIMUM RATINGS* $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CB0}	Collector-Base Voltage	20	V
V_{CE0}	Collector-Emitter Voltage	12	V
V_{EB0}	Emitter-Base Voltage	3	V
I_C	Collector Current -Continuous	0.1	A
P_C	Collector Dissipation	0.2	W
T_J, T_{stg}	Junction and Storage Temperature	-55~150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	3			V
Collector cut-off current	I_{CBO}	$V_{CB}=10\text{V}, I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=1\text{V}, I_C=0$			1	μA
DC current gain	h_{FE}	$V_{CE}=10\text{V}, I_C=20\text{mA}$	50		300	
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=20\text{mA}$	6			GHz
Noise figure	F	$V_{CE}=10\text{V}, I_C=7\text{mA}, f=1\text{GHz}$			2	dB

CLASSIFICATION OF h_{FE}

Marking	R23	R24	R25
Rank	Q	R	S
Range	50-100	80-160	125-250

TYPICAL CHARACTERISTICS (T_A = 25 °C)

