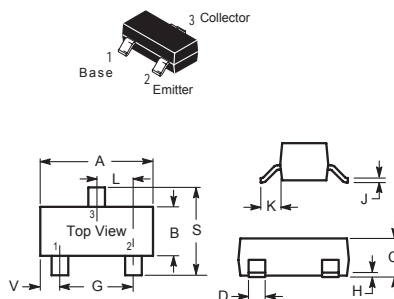
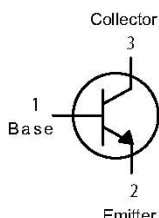


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

Low equivalent on-resistance

**MARKING: 491**



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		

## ABSOLUTE MAXIMUM RATINGS at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	$V_{CB0}$	80	V
Collector-Emitter Voltage	$V_{CEO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current -Continuous	$I_C$	1	A
Collector Power Dissipation	$P_C$	500	mW
Junction & Storage temperature	$T_J, T_{STG}$	150, -55~150	°C

## ELECTRICAL CHARACTERISTICS at Ta = 25°C

Parameter	Symbol	Min.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	80	-	V	$I_C=100\mu A, I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}^1$	60	-	V	$I_C=10mA, I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5	-	V	$I_E=100\mu A, I_C=0$
Collector cut-off current	$I_{CBO}$	-	0.1	$\mu A$	$V_{CB}=60V, I_E=0$
Emitter cut-off current	$I_{EBO}$	-	0.1	$\mu A$	$V_{EB}=4V, I_C=0$
DC current gain	$h_{FE(1)}$	100	-		$V_{CE}=5V, I_C=1mA$
	$h_{FE(2)}^1$	100	300		$V_{CE}=5V, I_C=500mA$
	$h_{FE(3)}^1$	80	-		$V_{CE}=5V, I_C=1A$
	$h_{FE(4)}^1$	30	-		$V_{CE}=5V, I_C=2A$
Collector-emitter saturation voltage	$V_{CE(sat)1}^1$	-	0.25	V	$I_C=500mA, I_B=50mA$
	$V_{CE(sat)2}^1$	-	0.5	V	$I_C=1A, I_B=100mA$
Base-emitter saturation voltage	$V_{BE(sat)}^1$	-	1.1	V	$I_C=1A, I_B=100mA$
	$V_{BE}^1$	-	1	V	$I_C=1A, V_{CE}=5V$
Transition frequency	$f_T$	150		MHz	$V_{CE}=10V, I_C=50mA, f=100MHz$
Output Capacitance	$C_{OB}$	-	10	pF	$V_{CB}=10V, f=1.0MHz, I_E=0$

Note: 1. Measured under pulsed conditions, Pulse width = 300  $\mu s$ , Duty cycle  $\leq 2\%$ .

**CHARACTERISTIC CURVES**

