

RoHS Compliant Product

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

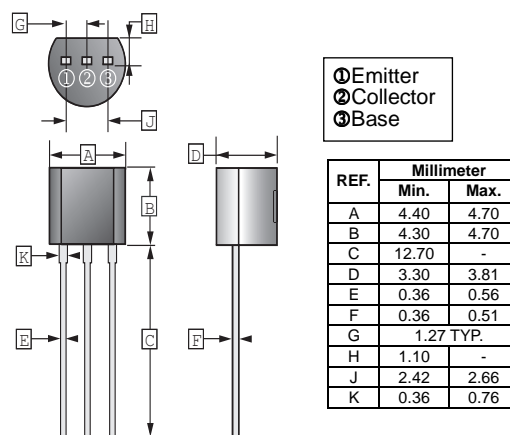
## FEATURES

- High DC Current Gain
- Complementary to 2SA950

## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SC2120-O	2SC2120-Y
Range	100~200	160~320

TO-92



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	35	V
Collector to Emitter Voltage	$V_{CE0}$	30	V
Emitter to Base Voltage	$V_{EB0}$	5	V
Collector Current - Continuous	$I_C$	0.8	A
Collector Power Dissipation	$P_C$	0.6	W
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	208	$^\circ\text{C} / \text{W}$
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 to Base Breakdown Voltage	$V_{(BR)CB0}$	35	-	-	V	$I_C=0.1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CE0}$	30	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EB0}$	5	-	-	V	$I_E=0.1\text{mA}, I_C=0$
Collector Cut - Off Current	$I_{CB0}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=35\text{V}, I_E=0$
Collector Cut - Off Current	$I_{CE0}$	-	-	0.1	$\mu\text{A}$	$V_{CE}=25\text{V}, I_B=0$
Emitter Cut - Off Current	$I_{EB0}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	100	-	320		$V_{CE}=1\text{V}, I_C=100\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=500\text{mA}, I_B=20\text{mA}$
Base to Emitter voltage	$V_{BE}$	-	-	0.8	V	$V_{CE}=1\text{V}, I_C=10\text{mA}$
Collector Output Capacitance	$C_{ob}$	-	-	13	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Transition Frequency	$f_T$	100	-	-	MHz	$V_{CE}=5\text{V}, I_C=10\text{mA}$

**CHARACTERISTIC CURVES**

