

RoHS Compliant Product

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

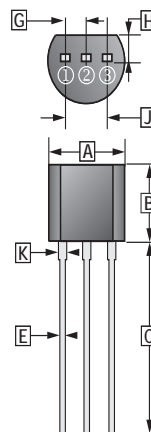
## FEATURES

- General Purpose Switching and Amplification

## CLASSIFICATION OF $h_{FE}$

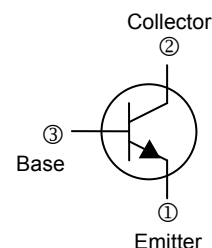
Product-Rank	2SC1674-Y	2SC1674-GR	2SC1674-BL
Range	40~80	60~120	90~180

## TO-92



① Emitter  
② Collector  
③ Base

REF.	Millimeter	
	Min.	Max.
A	4.40	4.70
B	4.30	4.70
C	12.70	-
D	3.30	3.81
E	0.36	0.56
F	0.36	0.51
G	1.27 TYP.	
H	1.10	-
J	2.42	2.66
K	0.36	0.76



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	30	V
Collector to Emitter Voltage	$V_{CEO}$	20	V
Emitter to Base Voltage	$V_{EBO}$	4	V
Collector Current - Continuous	$I_C$	20	mA
Collector Power Dissipation	$P_C$	250	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	500	$^\circ\text{C} / \text{W}$
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	$V_{(BR)CBO}$	30	-	-	V	$I_C=0.1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	20	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	4	-	-	V	$I_E=0.1\text{mA}, I_C=0$
Collector Cut - Off Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=30\text{V}, I_E=0$
Collector Cut - Off Current	$I_{CEO}$	-	-	0.1	$\mu\text{A}$	$V_{CE}=20\text{V}, I_B=0$
Emitter Cut - Off Current	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=3\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	40	-	180		$V_{CE}=6\text{V}, I_C=1\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.3	V	$I_C=10\text{mA}, I_B=1\text{mA}$
Base to Emitter voltage	$V_{BE}$	0.65	-	0.77	V	$V_{CE}=6\text{V}, I_C=1\text{mA}$
Transition Frequency	$f_T$	400	-	-	MHz	$V_{CE}=6\text{V}, I_C=1\text{mA}$
Collector Output Capacitance	$C_{ob}$	-	-	1.3	pF	$V_{CB}=6\text{V}, I_E=0, f=1\text{MHz}$