

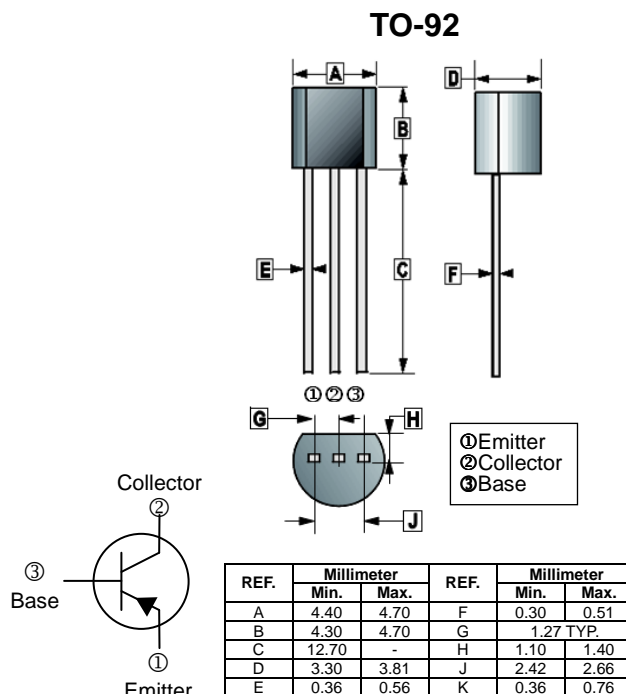
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- General Purpose Switching and Amplification.
- High Total Power Dissipation.
- High  $h_{FE}$  and Good Linearity

## CLASSIFICATION OF $h_{FE}$

Product-Rank	STB1277-O	STB1277-Y
Range	100~200	160~320



## 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	$V_{CEO}$	-30	V
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current - Continuous	$I_C$	-2	A
Collector Power Dissipation	$P_C$	0.625	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 condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	-30	-	-	V	$I_C = -0.1\text{mA}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -1\text{mA}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -30\text{V}, I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	$h_{FE}$	100	-	320		$V_{CE} = -2\text{V}, I_C = -500\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.8	V	$I_C = -2\text{A}, I_B = -0.2\text{A}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-1	V	$I_C = -500\text{mA}, V_{CE} = -2\text{V}$
Transition Frequency	$f_T$	-	170	-	MHZ	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$
Collector Output Capacitance	$C_{ob}$	-	48	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHZ}$