

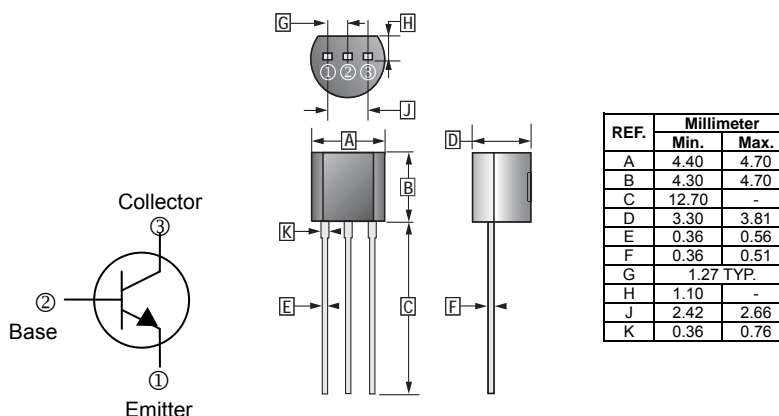
RoHS Compliant Product

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

## FEATURES

- General Purpose Switching Transistor

TO-92



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	160	V
Collector to Emitter Voltage	$V_{CEO}$	140	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current - Continuous	$I_C$	0.6	A
Collector Power Dissipation	$P_C$	625	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	200	$^\circ\text{C} / \text{W}$
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 Condition
Collector to Base Breakdown Voltage	$V_{(BR)CB0}$	160	-	-	V	$I_C = 0.1\text{mA}, I_E = 0\text{A}$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	140	-	-	V	$I_C = 1\text{mA}, I_B = 0\text{A}$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E = 0.01\text{mA}, I_C = 0\text{A}$
Collector Cut-Off Current	$I_{CBO}$	-	-	0.05	$\mu\text{A}$	$V_{CB} = 120\text{V}, I_E = 0\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	-	-	0.05	$\mu\text{A}$	$V_{EB} = 4\text{V}, I_C = 0\text{mA}$
DC Current Gain	$h_{FE}$	175	-	500		$V_{CE} = 5\text{V}, I_C = 10\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.25	V	$I_C = 50\text{mA}, I_B = 5\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1	V	$I_C = 50\text{mA}, I_B = 5\text{mA}$
Base to Emitter Voltage	$V_{BE}$	-	-	0.8	V	$V_{CE} = 5\text{V}, I_C = 1\text{mA}$
Collector output capacitance	$C_{ob}$	-	-	4	pF	$V_{CB} = 10\text{V}, I_E = 0\text{mA}, f = 1\text{MHz}$
Transition frequency	$f_T$	100	-	-	MHz	$V_{CE} = 10\text{V}, I_C = 1\text{mA}, f = 100\text{MHz}$