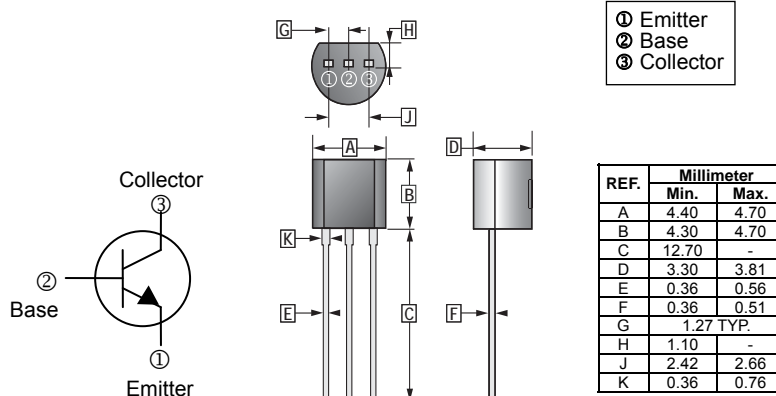


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- General Purpose Amplifier Transistor

TO-92



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V <sub>CB0</sub>	60	V
Collector to Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter to Base Voltage	V <sub>EBO</sub>	6	V
Collector Current - Continuous	I <sub>C</sub>	0.6	A
Collector Power Dissipation	P <sub>C</sub>	625	mW
Thermal resistance, junction to ambient	R <sub>θJA</sub>	200	°C / W
Junction, Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Collector to Base Breakdown Voltage	V <sub>(BR)CBO</sub>	60	-	-	V	I <sub>C</sub> = 0.1mA, I <sub>E</sub> = 0A
Collector to Emitter Breakdown Voltage	V <sub>(BR)CEO</sub> *	40	-	-	V	I <sub>C</sub> = 1mA, I <sub>B</sub> = 0A
Emitter to Base Breakdown Voltage	V <sub>(BR)EBO</sub>	6	-	-	V	I <sub>E</sub> = 0.1mA, I <sub>C</sub> = 0A
Collector Cut-Off Current	I <sub>CBO</sub>	-	-	0.1	µA	V <sub>CB</sub> = 60V, I <sub>E</sub> = 0 A
Emitter Cut-Off Current	I <sub>EBO</sub>	-	-	0.1	µA	V <sub>EB</sub> = 6V, I <sub>C</sub> = 0 mA
DC Current Gain	h <sub>FE</sub> *	20	-	-	V	V <sub>CE</sub> = 1V, I <sub>C</sub> = 1mA
		40	-	-		V <sub>CE</sub> = 1V, I <sub>C</sub> = 10mA
		50	-	150		V <sub>CE</sub> = 1V, I <sub>C</sub> = 150mA
		20	-	-		V <sub>CE</sub> = 2V, I <sub>C</sub> = 500mA
Collector to Emitter Saturation Voltage	V <sub>CE(sat)</sub> *	-	-	0.4	V	I <sub>C</sub> = 150mA, I <sub>B</sub> = 15mA
		-	-	0.75		I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA
Base to Emitter Saturation Voltage	V <sub>BE(sat)</sub> *	0.75	-	0.95	V	I <sub>C</sub> = 150mA, I <sub>B</sub> = 15mA
		-	-	1.2		I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA
Collector output Capacitance	C <sub>ob</sub>	-	-	6.5	pF	V <sub>CB</sub> = 5V, I <sub>E</sub> = 0A, f = 1MHz
Emitter input Capacitance	C <sub>ib</sub>	-	-	30	pF	V <sub>EB</sub> = 5V, I <sub>C</sub> = 0A, f = 1MHz
Transition Frequency	f <sub>T</sub> *	200	-	-	MHz	V <sub>CE</sub> = 10V, I <sub>C</sub> = 20mA, f = 100MHz

\*Pulse test : Pulse Width ≤ 300 µs, Duty Cycle ≤ 2.0%.