

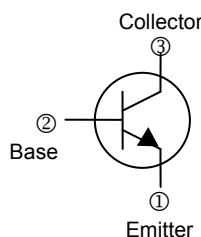
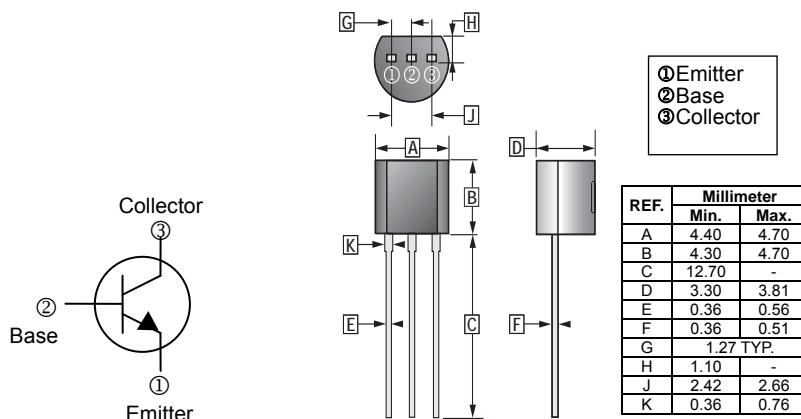
RoHS Compliant Product

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

## FEATURES

- High Voltage Transistors
- Complement of the 2N6520

TO-92



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	350	V
Collector to Emitter Voltage	$V_{CEO}$	350	V
Emitter to Base Voltage	$V_{EBO}$	6	V
Collector Current - Continuous	$I_C$	500	mA
Collector Power Dissipation	$P_C$	0.625	W
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 Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	350	-	-	V	$I_C=0.1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	350	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=0.01\text{mA}, I_C=0$
Collector Cut-Off Current	$I_{CBO}$	-	-	0.05	$\mu\text{A}$	$V_{CB}=250\text{V}, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	0.05	$\mu\text{A}$	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}^*$	20	-	-		$V_{CE}=10\text{V}, I_C=1\text{mA}$
	$h_{FE(2)}^*$	30	-	-		$V_{CE}=10\text{V}, I_C=10\text{mA}$
	$h_{FE(3)}^*$	30	-	200		$V_{CE}=10\text{V}, I_C=30\text{mA}$
	$h_{FE(4)}^*$	20	-	200		$V_{CE}=10\text{V}, I_C=50\text{mA}$
	$h_{FE(5)}^*$	15	-	-		$V_{CE}=10\text{V}, I_C=100\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}^*$	-	-	0.3	V	$I_C=10\text{mA}, I_B=1\text{mA}$
		-	-	1.0	V	$I_C=50\text{mA}, I_B=5\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}^*$	-	-	0.75	V	$I_C=10\text{mA}, I_B=1\text{mA}$
		-	-	0.85	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Base to Emitter Voltage	$V_{BE}^*$	-	-	2	V	$V_{CE}=10\text{V}, I_C=100\text{mA}$
Collector to Base Capacitance	$C_{ob}$	-	-	6	pF	$V_{CB}=20\text{V}, I_E=0\text{A}, f=1\text{MHz}$
Transition Frequency	$f_T^*$	40	-	200	MHz	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=20\text{MHz}$

\*Pulse test : Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$