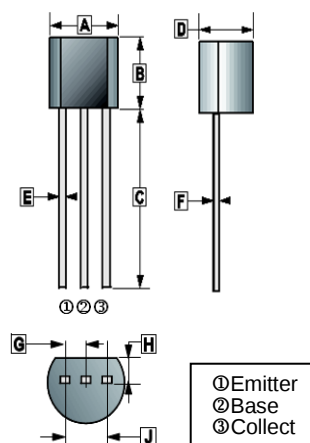
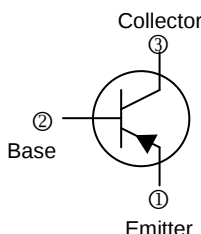


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Switching and amplifier applications

TO-92



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.70	F	0.30	0.51
B	4.30	4.70	G	1.27 TYP.	
C	12.70	14.5	H	1.10	1.40
D	3.30	3.81	J	2.42	2.66
E	0.36	0.56			

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-80	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-2	A
Collector Dissipation	P_C	625	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C} / \text{W}$
Junction and 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	$V_{(BR)CBO}$	-80	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector to Emitter Breakdown Voltage ¹	$V_{(BR)CEO}$	-60	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -80\text{V}, I_E = 0$
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -4\text{V}, I_C = 0$
DC Current Gain ¹	h_{FE}	75	-	-	V	$V_{CE} = -2\text{V}, I_C = -50\text{mA}$
		75	-	-		$V_{CE} = -2\text{V}, I_C = -500\text{mA}$
		75	-	-		$V_{CE} = -2\text{V}, I_C = -1\text{A}$
		40	-	-		$V_{CE} = -2\text{V}, I_C = -2\text{A}$
Collector to Emitter Saturation Voltage ¹	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -2\text{A}, I_B = -200\text{mA}$
		-	-	-0.3		$I_C = -1\text{A}, I_B = -100\text{mA}$
Base to Emitter Saturation Voltage ¹	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -1\text{A}, I_B = -100\text{mA}$
Base to Emitter Voltage ¹	$V_{BE(on)}$	-	-	-1	V	$I_C = -1\text{A}, V_{CE} = -2\text{V}$
Transition Frequency	f_T	-	75	-	MHz	$V_{CE} = -5\text{V}, I_C = -50\text{mA}, f = 100\text{MHz}$

Notes:

- Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle=2.0%.

CHARACTERISTIC CURVES

