

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

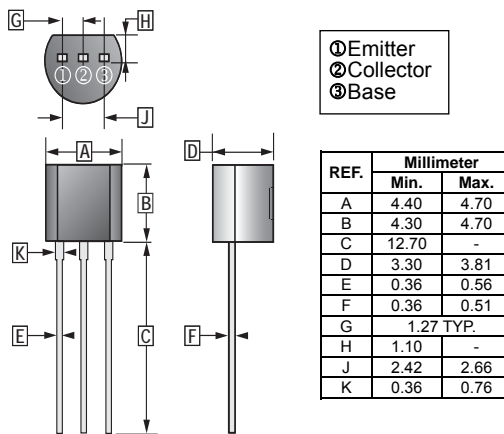
FEATURES

- Low Frequency Power Amplifier

TO-92

CLASSIFICATION OF h_{FE}

Product-Rank	2SB561-B	2SB561-C
Range	85~170	120~240



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-25	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-0.7	A
Collector Power Dissipation	P_C	0.5	W
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C} / \text{W}$
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	$V_{(BR)CBO}$	-25	-	-	V	$I_C = -0.01\text{mA}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-20	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -0.01\text{mA}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-1	μA	$V_{CB} = -20\text{V}, I_E = 0$
Emitter Cut-Off Current	I_{EBO}	-	-	-1	μA	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	h_{FE}	85	-	240		$V_{CE} = -1\text{V}, I_C = -0.15\text{A}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -0.5\text{A}, I_B = -0.05\text{A}$
Base to Emitter Voltage	V_{BE}	-	-	-1	V	$V_{CE} = -1\text{V}, I_C = -0.15\text{A}$
Collector Output Capacitance	C_{cb}	-	20	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$
Transition Frequency	f_T	-	350	-	MHz	$V_{CE} = -1\text{V}, I_C = -0.15\text{A}$