

isc Silicon PNP Power Transistor

2SB1657

DESCRIPTION

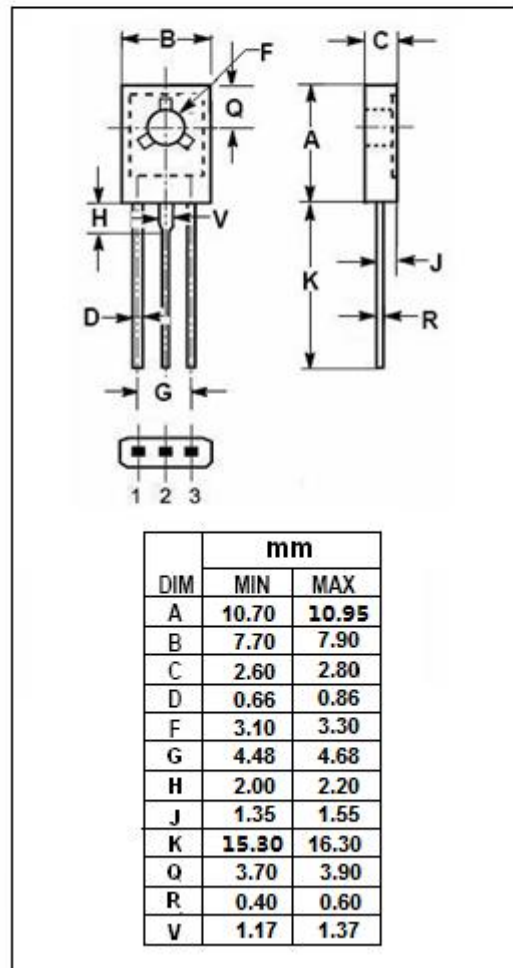
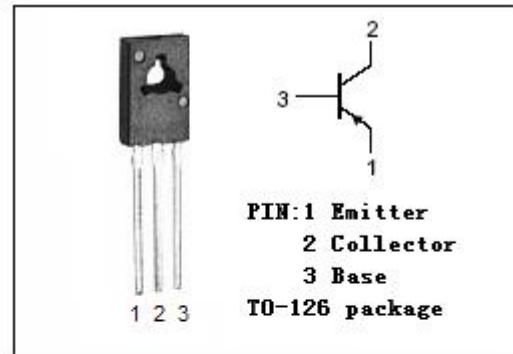
- High Collector Current $-I_C = -5A$
- High DC Current Gain-
: $h_{FE} = 150 \sim 600 @ I_C = -1A$
- Low-Collector Saturation Voltage-
: $V_{CE(sat)} = -0.15V(\text{Max.}) @ I_C = -0.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio frequency amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-5	A
I_{CP}	Collector Current-Pulse	-8	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	10	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon PNP Power Transistor**2SB1657****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -0.5A; I _B = -25mA			-0.15	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -1A; I _B = -50mA			-0.25	V
V _{CE(sat)-3}	Collector-Emitter Saturation Voltage	I _C = -2A; I _B = -0.1A			-0.4	V
V _{CE(sat)-4}	Collector-Emitter Saturation Voltage	I _C = -3A; I _B = -75mA			-1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -1A; I _B = -50mA			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -30V; I _E = 0			-0.1	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -6V; I _C = 0			-0.1	μA
h _{FE-1}	DC Current Gain	I _C = -0.5A; V _{CE} = -2V	150		600	
h _{FE-2}	DC Current Gain	I _C = -3A; V _{CE} = -2V	70			
f _T	Current-Gain—Bandwidth Product	I _C = -50mA; V _{CE} = -10V		75		MHz
C _{OB}	Output Capacitance	I _E =0; V _{CB} = -10V, f _{test} = 1MHz		60		pF

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