

isc Silicon PNP Power Transistor
2SB631
DESCRIPTION

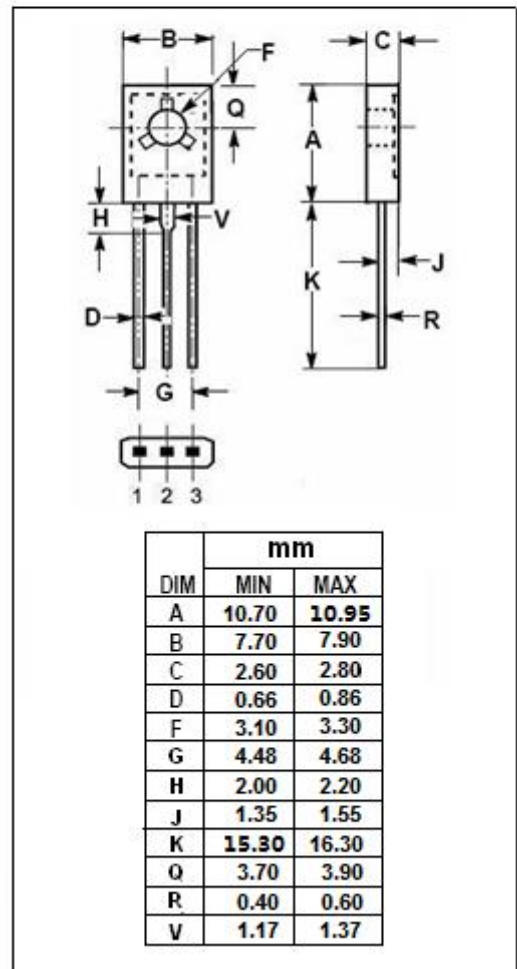
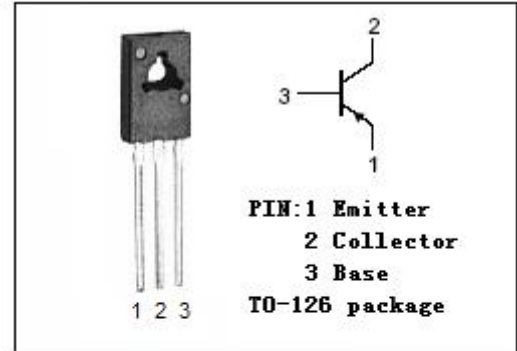
- High Collector Current- $I_C=-1.0A$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO}=-100V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Complement to Type 2SD600
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-1	A
I_{CP}	Collector Current-Pulse	-2	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	8	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	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -10 μ A ; I _E = 0	-100			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -1mA ; R _{BE} = ∞	-100			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -10 μ A ; I _C =0	-5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -500mA; I _B = -50mA			-0.4	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -500mA; I _B = -50mA			-1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -50V; I _E = 0			-1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4V; I _C = 0			-1	μ A
h _{FE-1}	DC Current Gain	I _C = -50mA ; V _{CE} = -5V	60		320	
h _{FE-2}	DC Current Gain	I _C =-500mA ; V _{CE} = -5V	20			
f _T	Current-Gain—Bandwidth Product	I _C = -50mA ; V _{CE} = -10V		110		MHz
C _{OB}	Output Capacitance	I _E =0 ; V _{CB} = -10V, f _{test} = 1MHz		30		pF

Switching times

t _f	Fall Time	I _C = -500mA , R _L = 24 Ω , I _{B1} = -I _{B2} = -50m A, V _{CE} = -12V		0.08		μ s
t _{off}	Turn-Off Time			0.1		μ s
t _{stg}	Storage Time			0.6		μ s

◆ h_{FE-1} Classifications

D	E	F
60-120	100-200	160-320

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