

isc Silicon PNP Darlington Power Transistor
2SB1031
DESCRIPTION

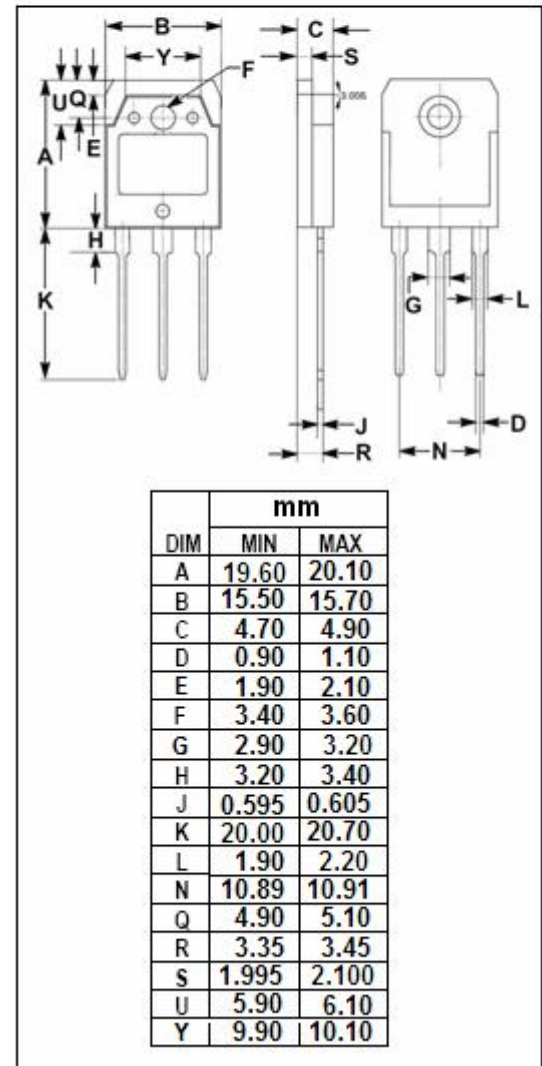
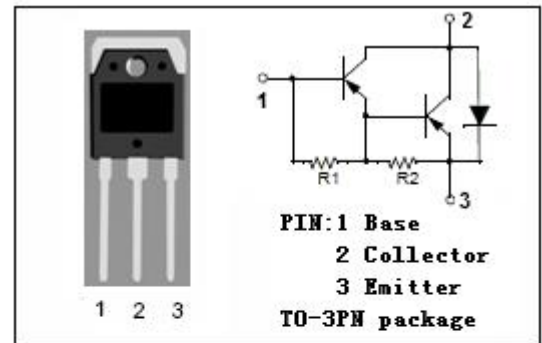
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min}) @ I_C = -8\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = -100\text{V}(\text{Min})$
- Complement to Type 2SD1435
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency 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	-7	V
I_C	Collector Current-Continuous	-15	A
I_{CM}	Collector Current-Peak	-20	A
I_B	Base Current- Continuous	-3	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	100	W
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 _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -30mA, R _{BE} = ∞	-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 = -5mA, I _C = 0	-7			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -8A, I _B = -16mA			-2.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -15A, I _B = -150mA			-3.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = -8A, I _B = -16mA			-2.5	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = -15A, I _B = -150mA			-3.5	V
I _{CBO}	Collector Cutoff current	V _{CB} = -100V, I _E = 0			-0.1	mA
I _{CEO}	Collector Cutoff current	V _{CE} = -80V, R _{BE} = ∞			-1.0	mA
h _{FE}	DC Current Gain	I _C = -8A ; V _{CE} = -3V	1000		20000	

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