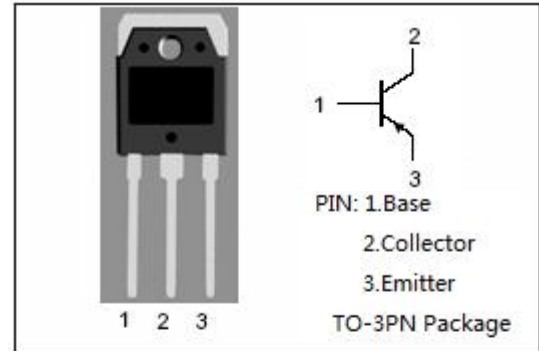


**isc Silicon PNP Power Transistor**
**2SA2031**
**DESCRIPTION**

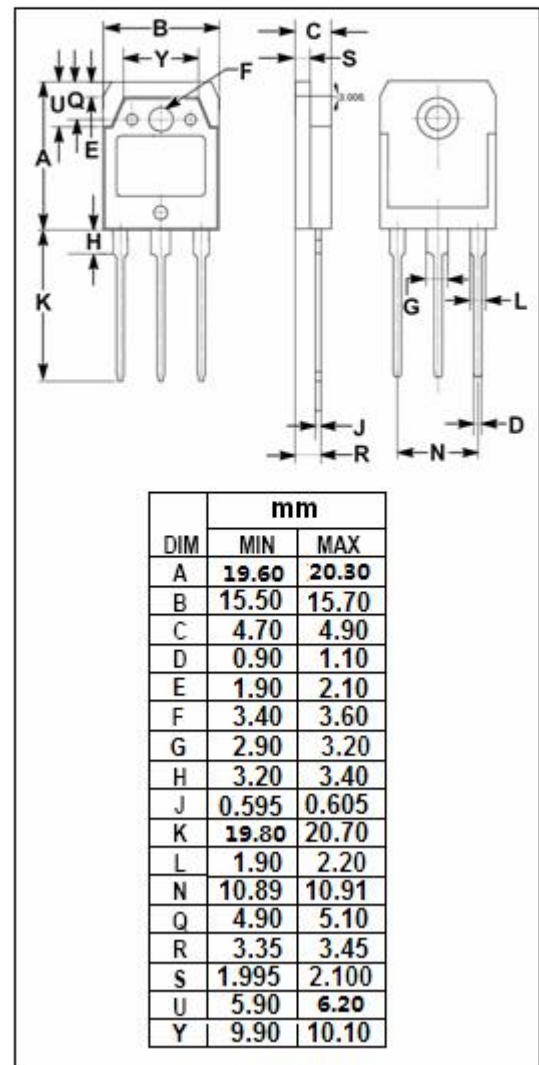
- Large current capacitance
- Wide ASO and high durability against breakdown
- Complement to Type 2SC5669
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- 230V/15A AF100W output application


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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-230	V
$V_{CEO}$	Collector-Emitter Voltage	-230	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-15	A
$I_{CM}$	Collector Current-Pulse	-30	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	140	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor**
**2SA2031**
**ELECTRICAL CHARACTERISTICS**

 T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -50mA ; I <sub>B</sub> = 0	-230			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -7.5A; I <sub>B</sub> = -0.75A			-2.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -7.5A ; V <sub>CE</sub> = -5V		-1.0	-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -230V ; I <sub>E</sub> =0			-100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> =0			-100	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1A ; V <sub>CE</sub> = -5V	60		160	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -7.5A ; V <sub>CE</sub> = -5V	35			
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> = -10V; f <sub>test</sub> = 1.0MHz		200		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> =-1A ; V <sub>CE</sub> = -5V		15		MHz

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