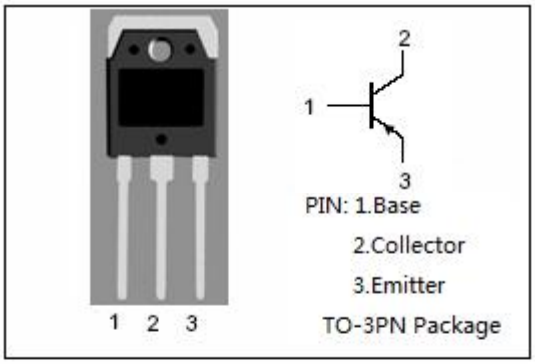
isc Silicon PNP Power Transistor — 2SA2031

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

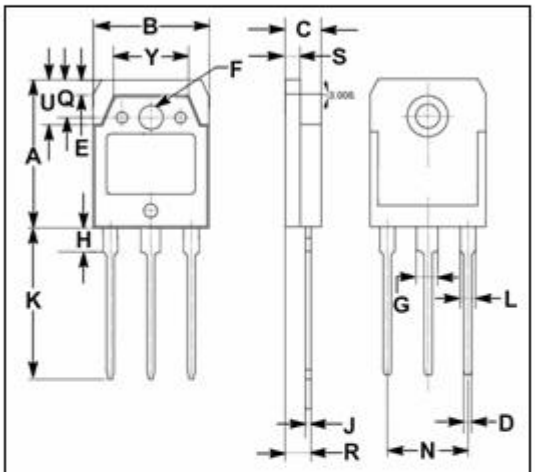


APPLICATIONS

- 230V/15A AF100W output application

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	140	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -50mA ; I_B= 0	-230			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -7.5A; I_B= -0.75A			-2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -7.5A ; V_{CE}= -5V		-1.0	-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -230V ; I_E=0			-100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -4V; I_C=0			-100	μA
h_{FE-1}	DC Current Gain	I_C= -1A ; V_{CE}= -5V	60		160	
h_{FE-2}	DC Current Gain	I_C= -7.5A ; V_{CE}= -5V	35			
C_{OB}	Output Capacitance	I_E=0 ; V_{CB}= -10V;f_{test}= 1.0MHz		200		pF
f_T	Current-Gain—Bandwidth Product	I_C=-1A ; V_{CE}= -5V		15		MHz