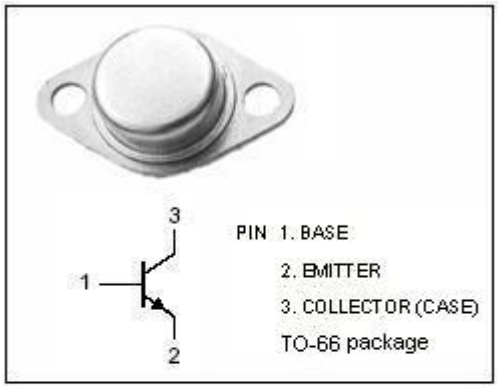
isc Silicon NPN Power Transistor 2N5430

DESCRIPTION

- Contunuous Collector Current-I_C= 7A
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.2V(Max) @I_C= 7A
- Wide Area of Safe Operation



APPLICATIONS

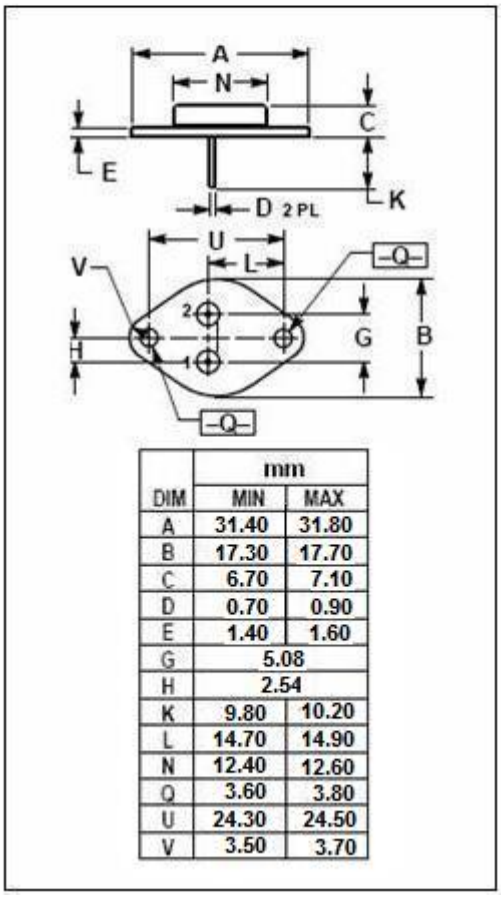
- Designed for switching and wide-band amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation@T_C=25℃	40	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	4.37	℃/W



DIM	mm MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	100		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.2A		0.7	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 0.7A		1.2	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 0.2A		1.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 7A; I_B= 0.7A		2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0		0.1	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= 90V; $V_{BE(off)}$= -1.5V V_{CE}= 90V; $V_{BE(off)}$= -1.5V,T_C=150℃		0.1 1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 0.5A ; V_{CE}= 2V	60		
h_{FE-2}	DC Current Gain	I_C= 2A; V_{CE}= 2V	60	240	
h_{FE-3}	DC Current Gain	I_C= 5A; V_{CE}= 2V	40		
f_T	Current Gain-Bandwidth Product	I_C= 0.5A; V_{CE}= 10V; f=10MHz	20		MHz