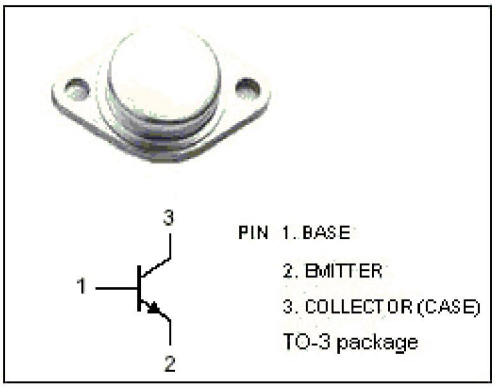
isc Silicon NPN Power Transistor BUS131H

DESCRIPTION

- High Switching Speed
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 450V (Min)

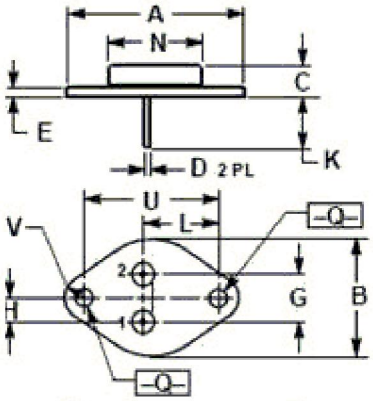


APPLICATIONS

- Designed for use in very fast switching applications in inductive circuits.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	MAX	UNIT
V_{CES}	Collector- Emitter Voltage (V_{BE}= 0)	850	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	9	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current	4	A
I_{BM}	Base Current-Peak	8	A
P_C	Collector Power Dissipation @T_C=25℃	125	W
T_j	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~200	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.4	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 0.1A ; I_B= 0; L= 10mH	450			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 1.5A; I_B= 0.15A			1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A			2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A			1.5	V
I_{CEV}	Collector Cutoff Current	V_{CE}=$V_{CESMmax}$;V_{BE}=-1.5V V_{CE}=$V_{CESMmax}$;V_{BE}=-1.5V;T_J=100℃			0.25 1.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			1	mA
h_{FE}	DC Current Gain	I_C= 5A ; V_{CE}= 5V	7			
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V; f_{test}= 1kHz			200	pF
Switching Times , Resistive Load						
t_{on}	Turn-On Time	I_C= 3A ;I_{B1}= 0.3A;I_{B2}= -0.6A		0.4		μs
t_{stg}	Storage Time			1.2		μs
t_f	Fall Time			0.12		μs