

isc Silicon NPN Power Transistors

BUX81

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CE(SUS)} = 450V(\text{Min})$
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

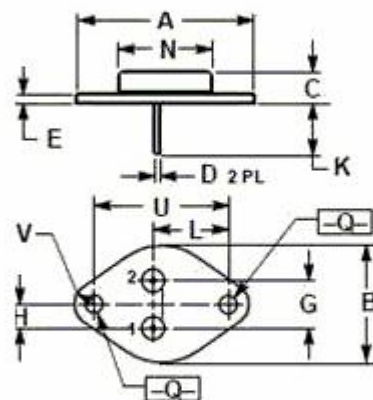
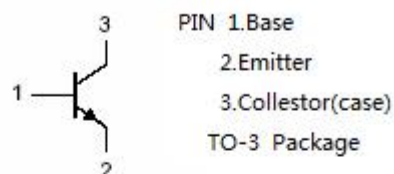
- Designed for switching-mode power supplies, CRT scanning, Inverters, and other industrial applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage $V_{BE}=0$	850	V
V_{CEO}	Collector-Emitter Voltage	430	V
V_{CER}	Collector-Emitter Voltage $R_{BE}=50\Omega$	500	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	150	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.1	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A		39.00
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G		10.92
H		5.46
K	11.30	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

isc Silicon NPN Power Transistors**BUX81****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; I _B = 0	450			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 2.5A			3.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.4	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 8A; I _B = 2.5A			1.8	V
I _{CBO}	Collector Cutoff Current	V _{CB} =1000V; I _E = 0 V _{CB} =1000V; I _E = 0, T _C =125°C			1.0 3.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 10V; I _C = 0			10	mA
h _{FE}	DC Current Gain	I _C = 1.2A; V _{CE} = 5V		20		

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