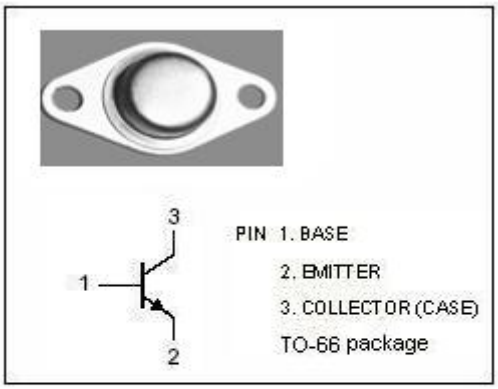
isc Silicon NPN Power Transistor BUX59

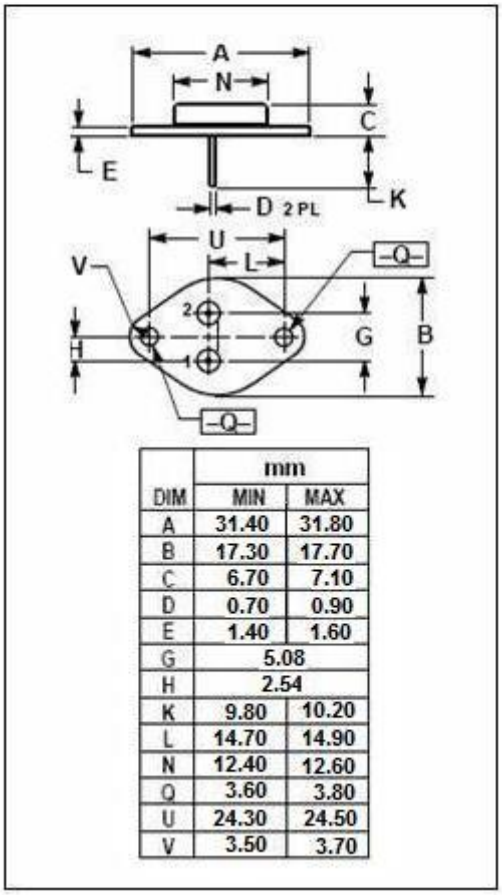
DESCRIPTION

- Low Saturation Voltage
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in high frequency and efficiency converters,switching regulators and motor control



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	90	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	8	A
P_C	Collector Power Dissipation@T_C=25℃	70	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	5.0	℃/W

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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	90		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 0.8A		1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 0.8A		2.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 90V; I_B=0		2	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 120V, I_E=0		1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0		0.5	mA
h_{FE-1}	DC Current Gain	I_C= 4A ; V_{CE}= 5V	20	60	