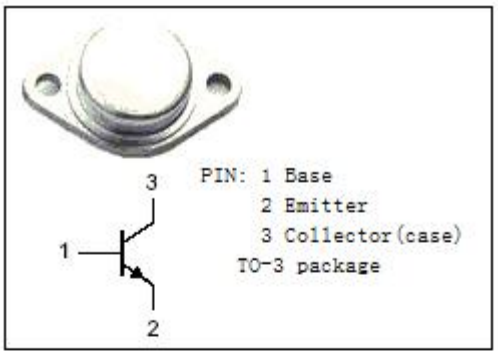
isc Silicon NPN Power Transistor BUR54

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 400V(Min)
- High Current Capability
- Low Saturation Voltage

: $V_{CE(sat)}$= 1.2V(Max)@ I_C= 20A



APPLICATIONS

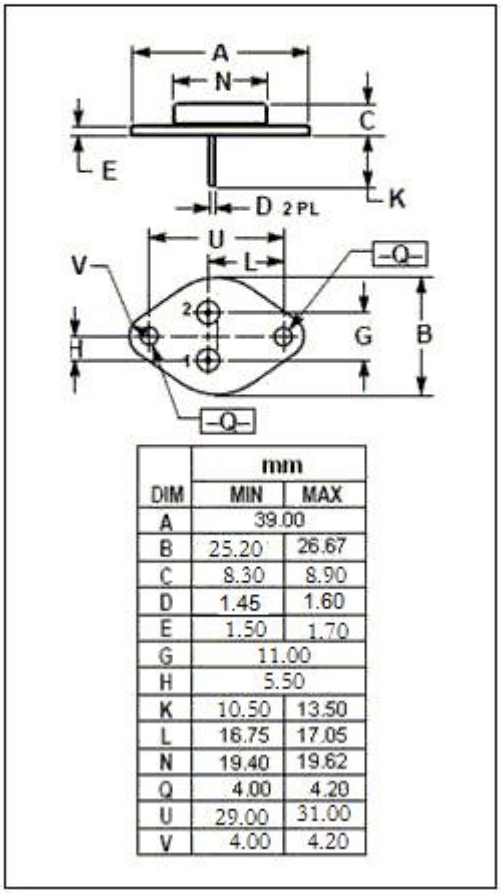
- Designed for switching and linear applications in military and industrial equipment.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
$V_{CEO(SUS)}$	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	50	A
I_B	Base Current-Continuous	10	A
P_C	Collector Power Dissipation @T_C=100℃	350	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.5	℃/W



DIM	mm MIN	MAX
A	39.00	
B	25.20	26.67
C	8.30	8.90
D	1.45	1.60
E	1.50	1.70
G	11.00	
H	5.50	
K	10.50	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	29.00	31.00
V	4.00	4.20

isc Silicon NPN Power Transistor BUR54

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$*	Collector-Emitter Sustaining Voltage	I_C=10mA ; I_B= 0	400			V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C= 20A; I_B=2A			1.2	V
$V_{BE(sat)}$*	Base-Emitter Saturation Voltage	I_C= 20A; I_B= 2A			1.8	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 400V;I_B= 0			1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 500V; I_E= 0 V_{CB}= 500V; I_E= 0; T_C= 125℃			0.2 2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C=0			1.0	A
h_{FE} *	DC Current Gain	I_C= 5A ; V_{CE}= 4V	20			
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 5V; f_{test}= 10MHz		8		MHz

*Pulsed:pulse duration=30us,duty cycle≤2%