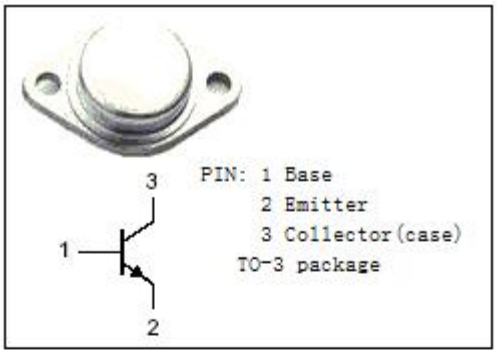
isc Silicon NPN Power Transistor — BUR50

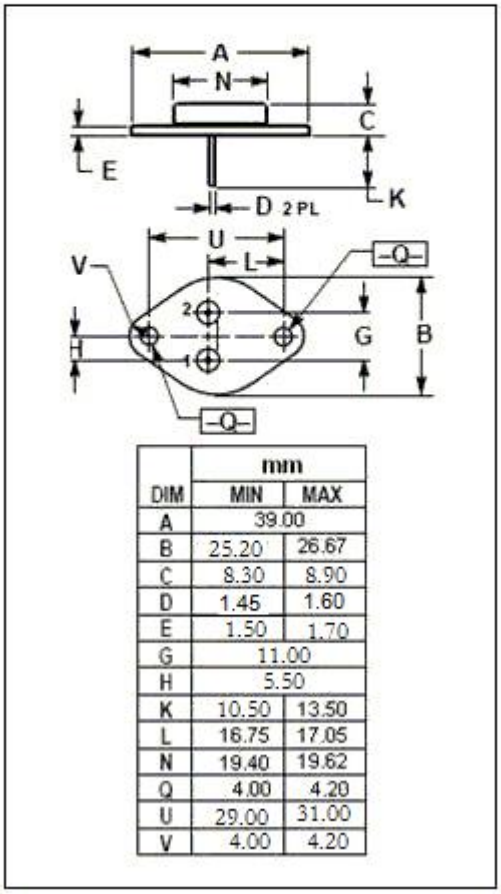
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 125V(Min)
- High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for low voltage ,high speed,power switching in Inductive circuits where fall time is critical.It is particularly suited for battery switch mode application such as switching regulations.



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	125	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	70	A
I_B	Base Current-Continuous	20	A
P_C	Collector Power Dissipation @T_C=25℃	350	W
T_J	Junction Temperature	-65~200	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.5	℃/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=50mA ; I_B= 0	125			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 35A; I_B= 2A			1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 70A; I_B= 7A			1.2	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 35A; I_B= 2A			1.8	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 70A; I_B=7A			2.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 125V;I_B= 0			1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 200V; I_E= 0 V_{CB}= 200V; I_E= 0; T_C= 125℃			0.2 2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C=0			0.2	mA
h_{FE-1}	DC Current Gain	I_C= 5A ; V_{CE}= 4V	20			
h_{FE-2}	DC Current Gain	I_C= 50A ; V_{CE}= 4V	15			