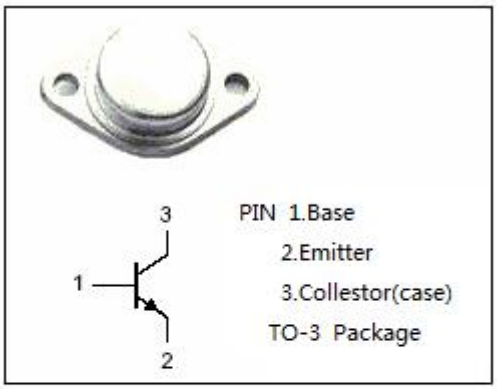
isc Silicon NPN Power Transistor BUS50

DESCRIPTION

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

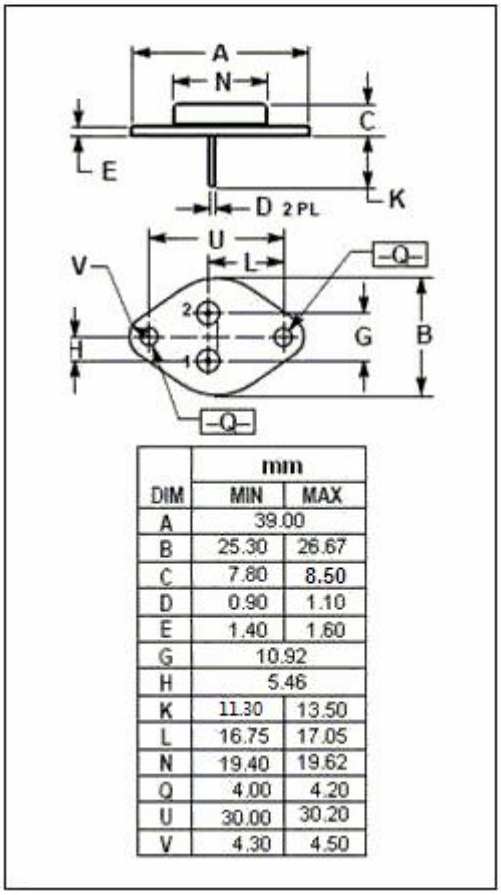


APPLICATIONS

- 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.

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	MAX	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	20	A
P_C	Collector Power Dissipation @T_C=25℃	350	W
T_j	Junction Temperature	-65~200	℃
T_{stg}	Storage Temperature Range	-65~200	℃



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

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_{CBO}	Collector Cutoff Current	V_{CE}= 200V; V_{BE}= 0 V_{CE}= 200V;V_{BE}= 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			