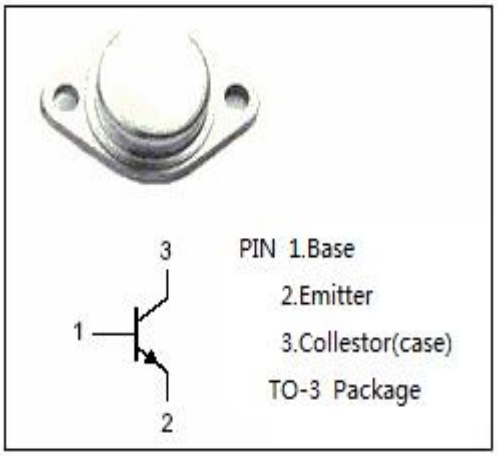
isc Silicon NPN Power Transistors — BUX18/A/B/C

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 200V(Min)- BUX18
  = 325V(Min)- BUX18A
  = 375V(Min)- BUX18B
  = 425V(Min)- BUX18C
- High Switching Speed
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

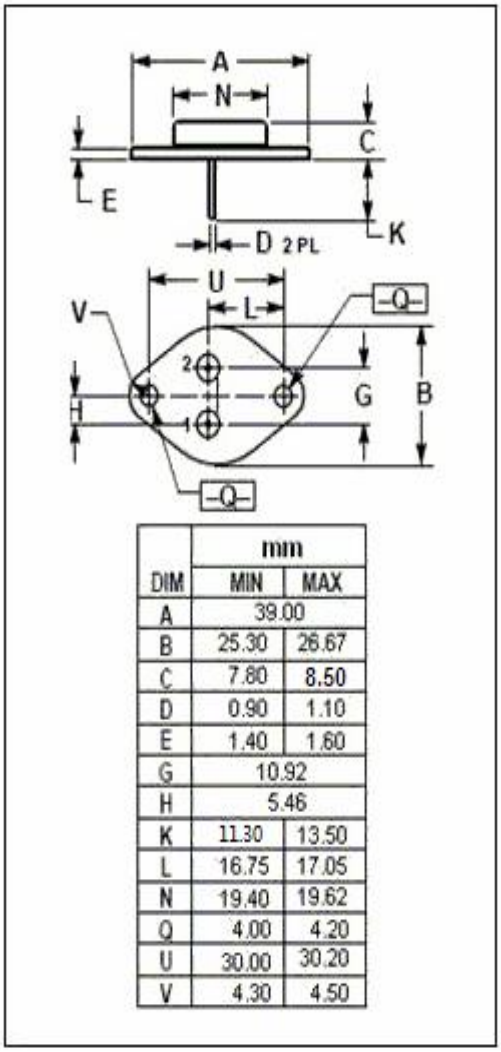


APPLICATIONS

- Designed for use in off-line power supplies and is also well suited for use in a wide range of inverter or converter circuits and pulse-width-modulated regulators.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage V_{BE}= -1.5V	BUX18	250	V
		BUX18A	350	
		BUX18B	400	
		BUX18C	475	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BUX18	200	V
		BUX18A	275	
		BUX18B	325	
		BUX18C	375	
V_{EBO}	Emitter-Base Voltage		6	V
I_C	Collector Current-Continuous		8	A
P_C	Collector Power Dissipation@T_C=25℃		120	W
T_J	Junction Temperature		200	℃
T_{stg}	Storage Temperature		-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	1.17	℃/W

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BUX18	I_C= 50mA ; I_B= 0	200			V
		BUX18A		275			
		BUX18B		325			
		BUX18C		375			
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage		I_E= 1mA ; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BUX18	I_C= 6A; I_B= 1.2A			2.5	V
		BUX18A	I_C= 5A; I_B= 1A				
		BUX18B/C	I_C= 4A; I_B= 0.8A				
$V_{BE(on)}$	Base-Emitter On Voltage	BUX18	I_C= 6A; V_{CE}= 3V			1.5	V
		BUX18A/B/C	I_C= 4A; V_{CE}= 3V				
I_{CBO}	Collector Cutoff Current	BUX18	V_{CB}= 300V; I_E= 0 V_{CB}= 300V; I_E= 0,T_C= 150℃			3 10	mA
		BUX18A	V_{CB}= 350V; I_E= 0 V_{CB}= 350V; I_E= 0,T_C= 150℃			3 10	
		BUX18B	V_{CB}= 400V; I_E= 0 V_{CB}= 400V; I_E= 0,T_C= 150℃			3 5	
		BUX18C	V_{CE}= 475V; I_E= 0 V_{CE}= 475V; I_E= 0,T_C= 150℃			3 5	
I_{EBO}	Emitter Cutoff Current		V_{EB}= 6V; I_C=0			1.0	mA
h_{FE}	DC Current Gain	BUX18	I_C= 6A; V_{CE}= 3V	7			
		BUX18A	I_C= 5A; V_{CE}= 3V				
		BUX18B/C	I_C= 4A; V_{CE}= 3V	10			