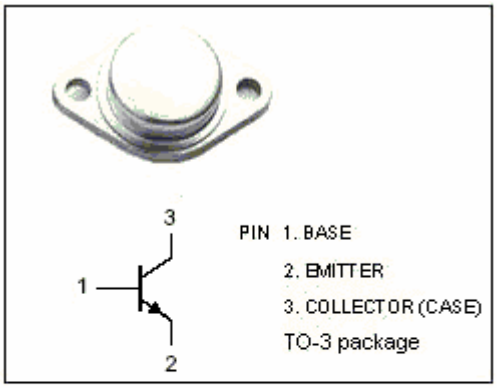
isc Silicon NPN Power Transistors BUX16/A/B/C

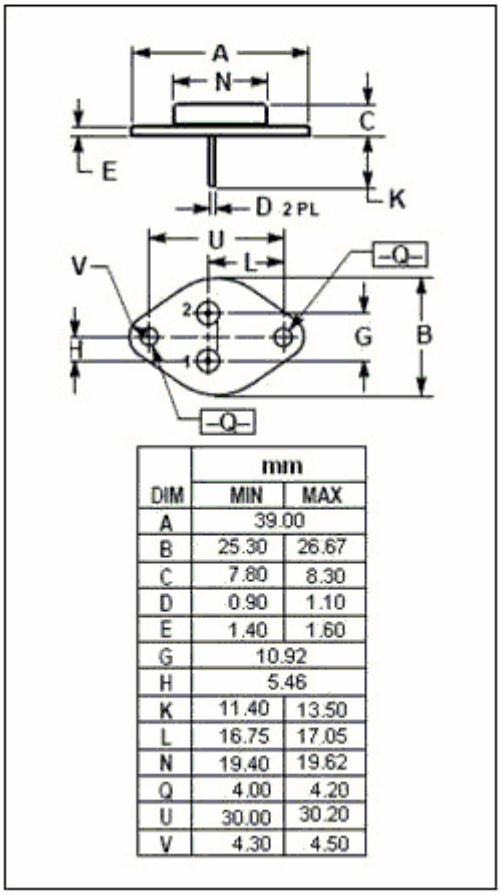
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 200V(Min)- BUX16
  = 250V(Min)- BUX16A
  = 300V(Min)- BUX16B
  = 350V(Min)- BUX16C
- High Power Dissipation
- Wide Area of Safe Operation

APPLICATIONS

- Designed for use in series regulators, power amplifiers, Inverters , deflection circuits , switching regulators, and high voltage bridge amplifiers.





DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BUX16	250	V
		BUX16A	325	
		BUX16B	375	
		BUX16C	425	
V_{CER}	Collector-Emitter Voltage $R_{BE}\leqslant 50\,\Omega$	BUX16	225	V
		BUX16A	300	
		BUX16B	350	
		BUX16C	400	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BUX16	200	V
		BUX16A	250	
		BUX16B	300	
		BUX16C	350	
V_{EBO}	Emitter-Base Voltage		6	V
I_C	Collector Current-Continuous		5	A
I_B	Base Current-Continuous		2	A
P_C	Collector Power Dissipation@T_C=25℃		100	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	1.75	℃/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	BUX16	I_C= 200mA ; I_B= 0	200			V
		BUX16A		250			
		BUX16B		300			
		BUX16C		350			
$V_{CER(SUS)}$	Collector-Emitter Sustaining Voltage	BUX16	I_C= 200mA ; R_{BE}≤50Ω	225			V
		BUX16A		300			
		BUX16B		350			
		BUX16C		400			
V_{EBO}	Emitter-Base Voltage		I_E= 20mA ; I_C= 0	6			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage		I_C= 2A; I_B= 0.25A			2.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage		I_C= 4.5A; I_B= 1.125A			5.0	V
$V_{BE(on)}$	Base-Emitter On Voltage		I_C= 2A; V_{CE}= 10V			3.0	V
I_{CEV}	Collector Cutoff Current	BUX16	V_{CE}= 250V;V_{BE}= -1.5V V_{CE}= 250V;V_{BE}= -1.5V;T_C= 150℃			5 8	mA
		BUX16A	V_{CE}= 325V;V_{BE}= -1.5V V_{CE}= 250V;V_{BE}= -1.5V;T_C= 150℃			5 8	
		BUX16B	V_{CE}= 375V;V_{BE}= -1.5V V_{CE}= 250V;V_{BE}= -1.5V;T_C= 150℃			2 3	
		BUX16C	V_{CE}= 425V;V_{BE}= -1.5V V_{CE}= 250V;V_{BE}= -1.5V;T_C= 150℃			2 3	
I_{EBO}	Emitter Cutoff Current	BUX16/A	V_{EB}= 5V; I_C=0			5.0	mA
		BUX16B/C				2.0	
h_{FE-1}	DC Current Gain		I_C= 0.4A ; V_{CE}= 10V	15		130	
h_{FE-2}	DC Current Gain	BUX16/A	I_C= 2A ; V_{CE}= 10V	15			
		BUX16B/C		12			
h_{FE-3}	DC Current Gain		I_C= 4.5A ; V_{CE}= 10V	5			
C_{OB}	Output Capacitance		I_E=0 ; V_{CB}= 10V; f_{test}= 1.0MHz			150	pF
f_T	Current-Gain—Bandwidth Product		I_C= 0.2A ;V_{CE}= 10V	5			MHz