

isc Silicon NPN Power Transistor

BUV23

DESCRIPTION

- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.8V$ (Max.) @ $I_C = 8A$
- High Switching Speed
- High DC Current Gain-
: $h_{FE} = 15$ (Min.) @ $I_C = 8A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

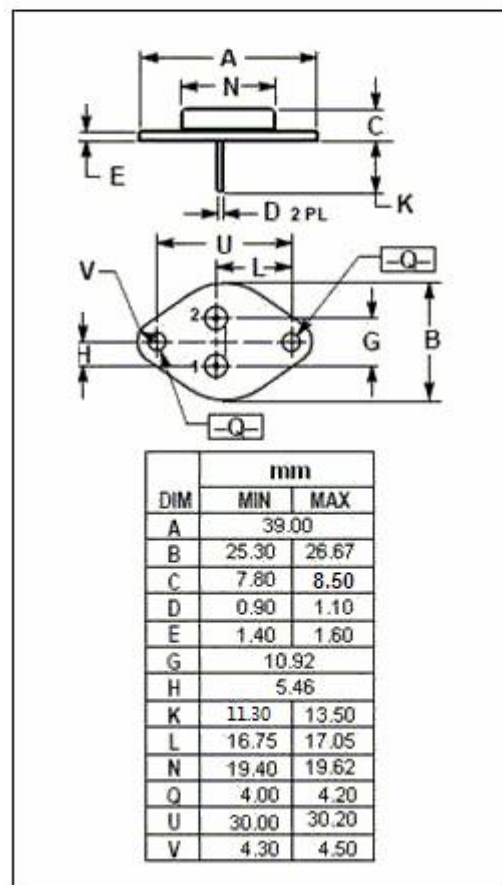
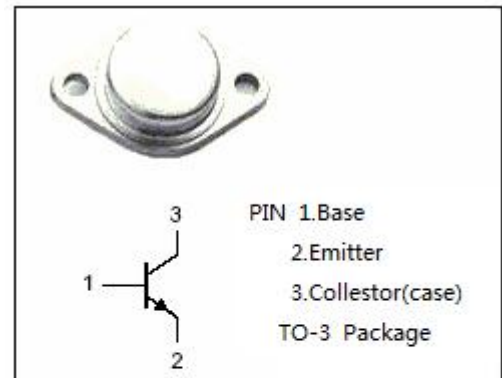
- Designed for high current, high speed, high power applications.

Absolute maximum ratings($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CER}	Collector-Emitter Voltage $R_{BE} = 100 \Omega$	390	V
V_{CEX}	Collector-Emitter Voltage $V_{BE} = -1.5V$	400	V
V_{CEO}	Collector-Emitter Voltage	325	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_{CM}	Collector Current-Peak	40	A
I_B	Base Current-Continuous	6	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	250	W
T_j	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature Range	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.7	$^\circ C/W$



isc Silicon NPN Power Transistor**BUV23****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _c = 50mA; I _B = 0	325			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 50mA; I _c = 0	7			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _c = 8A; I _B = 1.6A			0.8	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _c = 16A ;I _B = 3.2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _c = 16A ;I _B = 3.2A			1.5	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 260V; I _B = 0			3.0	mA
I _{CEx}	Collector Cutoff Current	V _{CE} = 400V;V _{BE} = -1.5V V _{CE} = 400V;V _{BE} = -1.5V;T _C =125°C			3.0 12.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _c = 0			1.0	mA
h _{FE-1}	DC Current Gain	I _c = 8A; V _{CE} = 4V	15		60	
h _{FE-2}	DC Current Gain	I _c = 16A; V _{CE} = 4V	8			

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