

isc Silicon NPN Power Transistor
BUV24
DESCRIPTION

- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.6V$ (Max.) @ $I_C = 6A$
- High Power Dissipation
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(sus)} = 400V$ (Min.)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

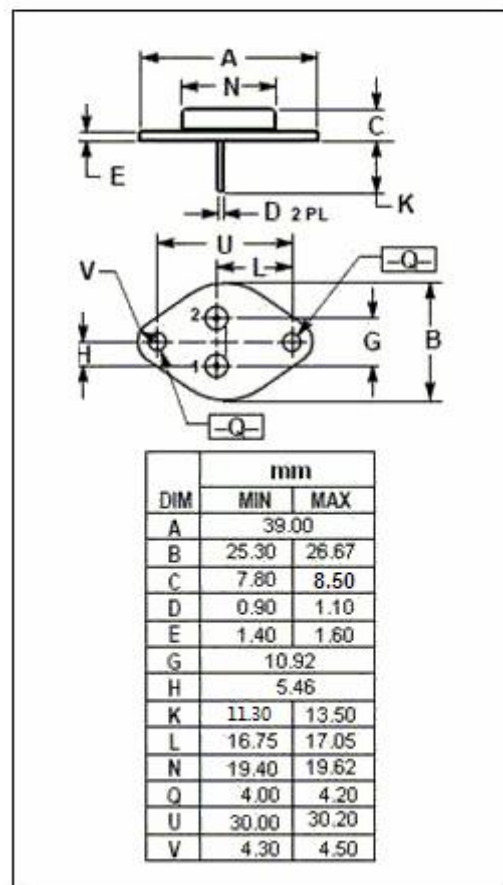
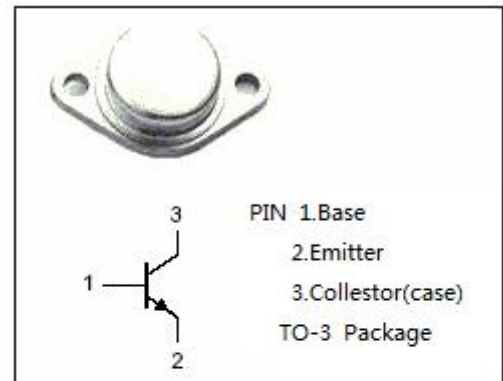
- Designed for use in power switching applications in military and industrial equipments.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	450	V
V_{CER}	Collector-Emitter Voltage $R_{BE} = 100 \Omega$	440	V
V_{CEX}	Collector-Emitter Voltage $V_{BE} = -1.5V$	450	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	20	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current-Continuous	4	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	$^\circ C/W$



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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	400			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 = 6A; I _B = 1.2A			0.6	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 12A ; I _B = 2.4A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 12A ; I _B = 2.4A			1.15	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 320V; I _B = 0			3.0	mA
I _{CEX}	Collector Cutoff Current	V _{CE} = V _{CEx} ; V _{BE} = -1.5V V _{CE} = V _{CEx} ; V _{BE} = -1.5V; T _c =125°C			3.0 12	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1.0	mA
h _{FE-1}	DC Current Gain	I _C = 6A ; V _{CE} = 4V	15		60	
h _{FE-2}	DC Current Gain	I _C = 12A ; V _{CE} = 4V	8			

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