

isc Silicon NPN Power Transistor
BUV25
DESCRIPTION

- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.6V$ (Max.) @ $I_C = 4A$
- High Power Dissipation
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(sus)} = 500V$ (Min.)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

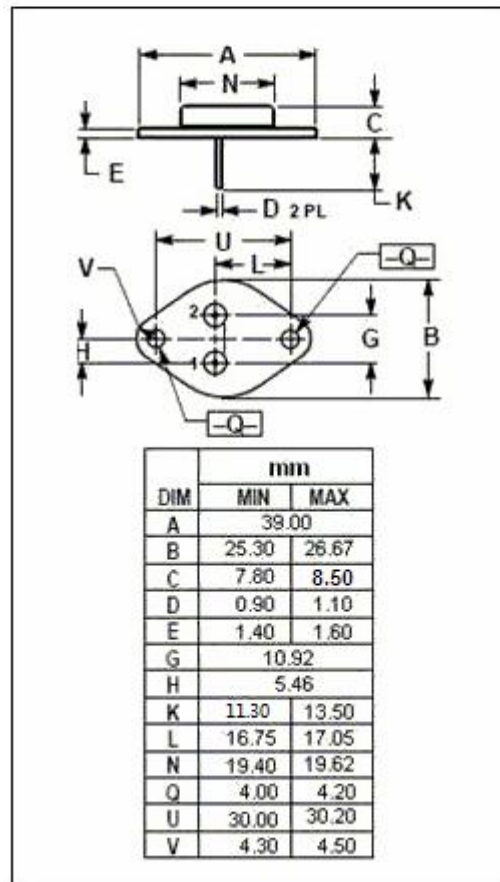
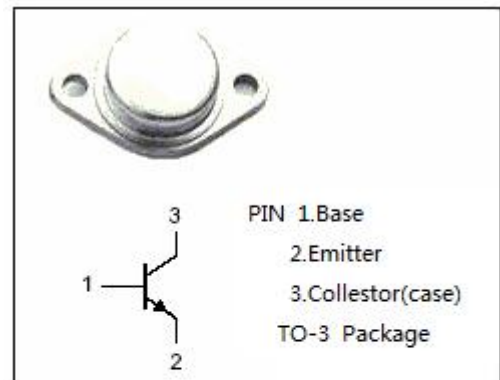
- Designed for use in power switching applications in military and industrial equipments.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	500	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current-Continuous	3	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
 $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	500			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=50\text{mA}; I_C=0$	7			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=0.8\text{A}$			0.6	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=1.6\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=1.6\text{A}$			1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=400\text{V}; I_B=0$			3.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=500\text{V}; I_E=0$ $V_{CB}=500\text{V}; I_E=0; T_c=125^{\circ}\text{C}$			3.0 12	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			1.0	mA
h_{FE-1}	DC Current Gain	$I_C=4\text{A}; V_{CE}=4\text{V}$	15		60	
h_{FE-2}	DC Current Gain	$I_C=8\text{A}; V_{CE}=4\text{V}$	8			

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