

isc Silicon NPN Power Transistor
BU124
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 150V(\text{Min})$
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

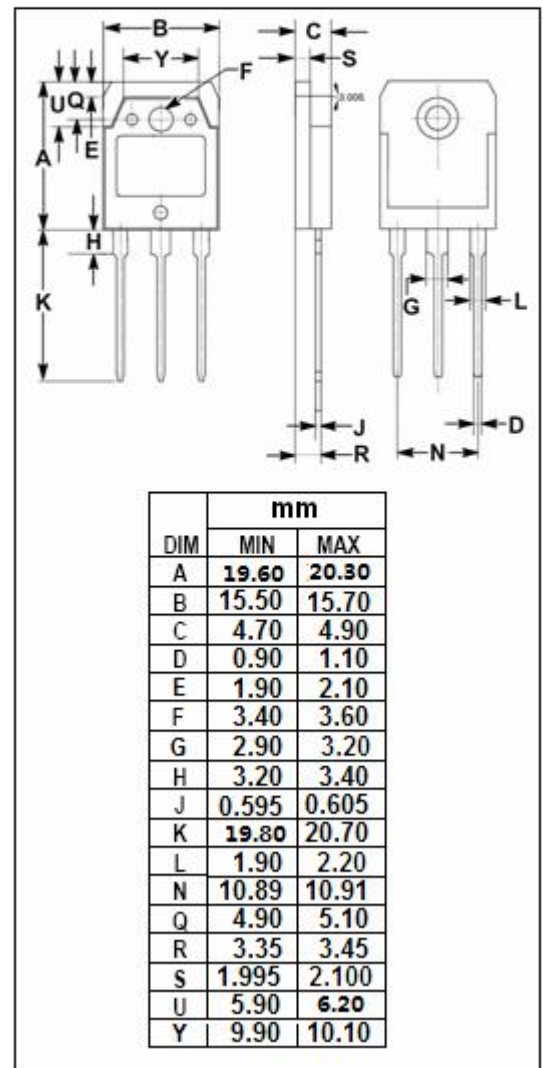
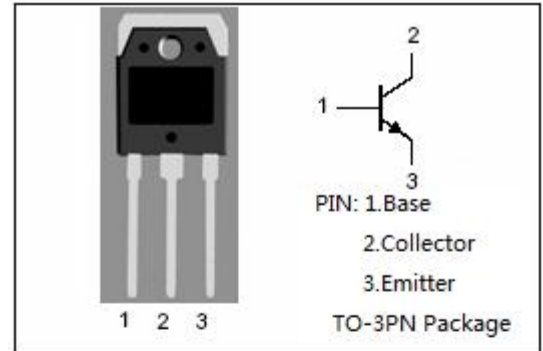
- Designed for switch-mode CTV supply systems applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	350	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	50	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.1	$^\circ\text{C/W}$



ELECTRICAL CHARACTERISTICST_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C =50mA ; I _B = 0	150			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 0.4A			1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 0.8A			2.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 0.4A			1.5	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 8A; I _B = 0.8A			2.5	V
I _{CB0}	Collector Base Cutoff Current	V _{CB} =350V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 8V; I _C =0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 5A ; V _{CE} = 5V	20			
h _{FE-2}	DC Current Gain	I _C = 10A ; V _{CE} = 5V	5			
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V; f _{test} = 1.0MHz	4			MHz

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