

isc Silicon NPN Power Transistors
BU120
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 200V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

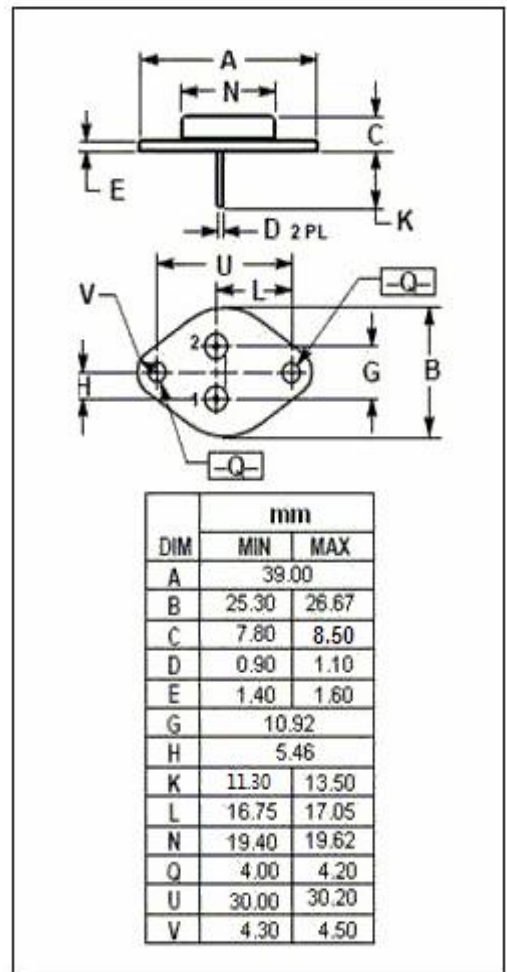
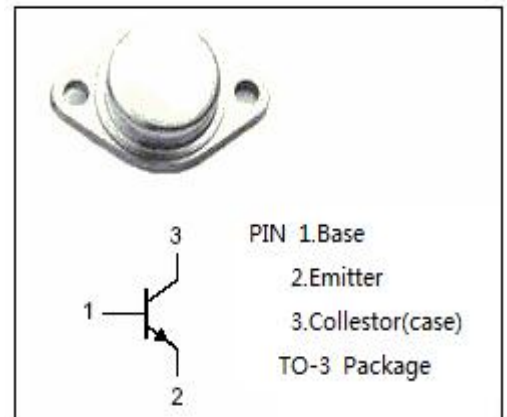
- Designed for horizontal deflection output stage of CTV receivers and high voltage, fast switching and industrial application.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Emitter Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-peak	15	A
I_B	Base Current-Continuous	3.0	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	1.75	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	200		V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	400		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 8A ; I _B = 2.5A		3.3	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 8A ; I _B = 2.5A		2.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 400V; I _E = 0		0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0		0.1	mA
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 5V	35	165	
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 10V; f _{test} = 1MHz	6		MHz

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