

isc Silicon NPN Power Transistor

BU110

DESCRIPTION

- Excellent Safe Operating Area
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0 \text{ V(Max)} @ I_C = 5 \text{ A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 150 \text{ V(Min)}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

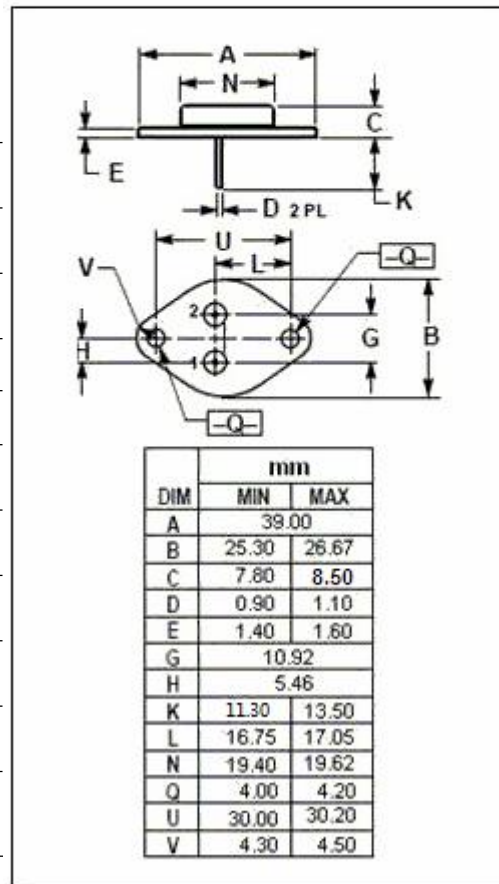
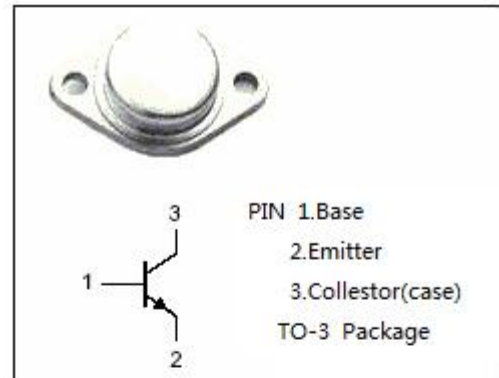
- Designed for horizontal deflection output stage of TVs and CRTs applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	330	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.08	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	70	$^\circ\text{C/W}$



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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	150		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.2	V
I _{CBO}	Collector Base Cutoff Current	V _{CB} =330V; I _E = 0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0		1.0	mA
h _{FE}	DC Current Gain	I _C = 5A ; V _{CE} = 1.5V	8		
f _T	Current Gain-Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V	15		MHz
t _{off}	Turn-Off Time	I _C = 5A; I _B = 0.5A		0.75	μs

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