

isc Silicon NPN Power Transistor

BU108

DESCRIPTION

- High Voltage
- High Switching Speed
- Collector Current- $I_C = 5A$

APPLICATIONS

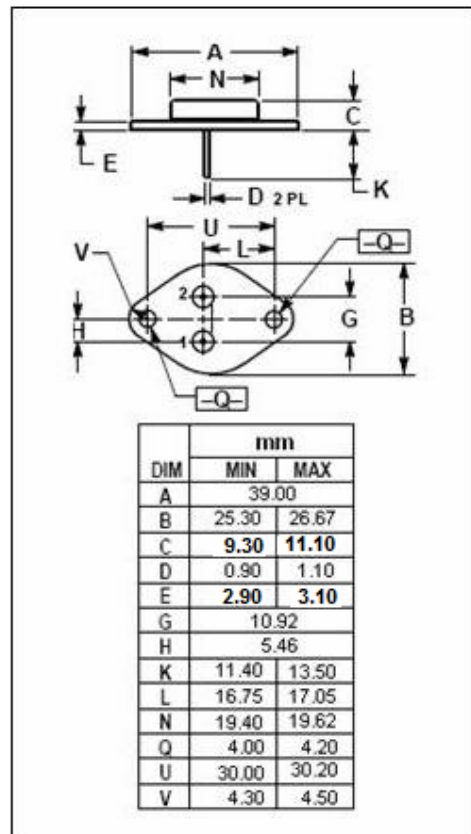
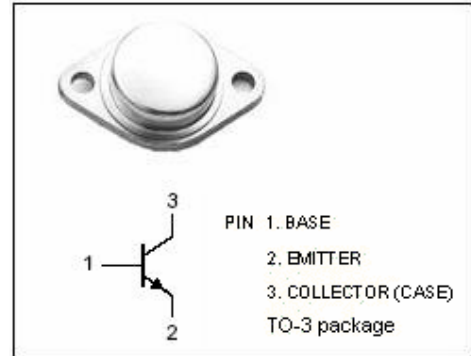
- Designed for high voltage CRT scanning applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	750	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_B	Base Current-Continuous	3.5	A
I_E	Emitter Current-Continuous	8.5	A
P_C	Collector Power Dissipation @ $V_{CE} \leq 100V, T_C \leq 95^{\circ}C$	12.5	W
T_J	Junction Temperature	115	$^{\circ}C$
T_{stg}	Storage Temperature	-65~115	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.6	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=100\text{mA}; I_C=0$	5		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=2\text{A}$		5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=2\text{A}$		1.3	V
I_{CEX}	Collector Cutoff Current	$V_{CE}=1500\text{V}; V_{BE}=-2\text{V}$		1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=1500\text{V}; I_E=0$		1.0	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8		
t_f	Fall Time	$I_C=4.5\text{A}$		1.2	μs