

isc Silicon NPN Power Transistor

BU104

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V(\text{Min.})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 2.5V(\text{Max.}) @ I_C = 7A$

APPLICATIONS

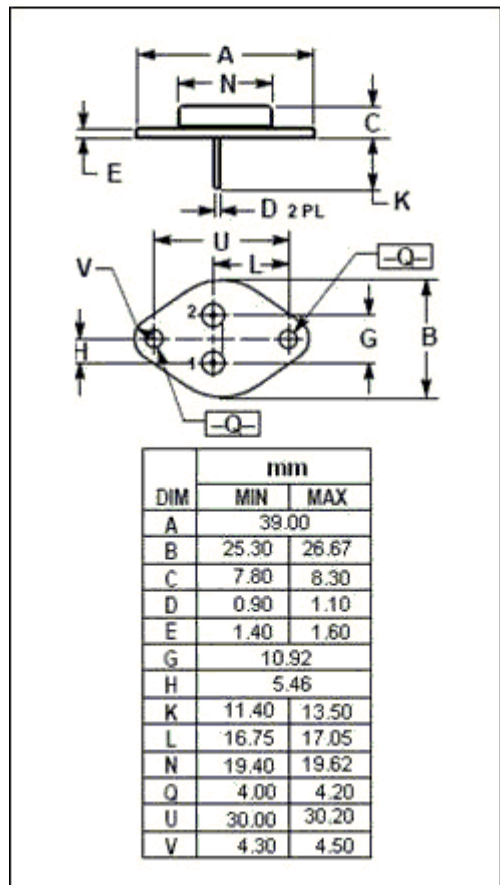
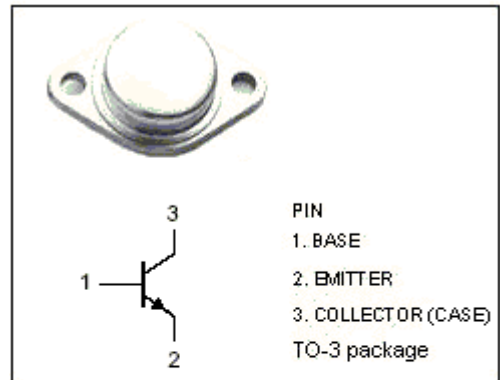
- Designed for use in horizontal deflexion output stage of B/W TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{CEX}	Collector-Emitter Voltage $V_{BE} = -5V$	400	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak Repetitive	15	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	85	W
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**BU104****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 50\text{mA}; I_B= 0$	150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 7\text{A}; I_B= 1\text{A}$			2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 7\text{A}; I_B= 1\text{A}$			2.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 250\text{V}; I_E= 0$			0.5	mA
I_{CEX}	Collector Cutoff Current	$V_{CE}= 400\text{V}; V_{BE}= -5\text{V}$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 10\text{V}; I_C= 0$			10	mA
h_{FE}	DC Current Gain	$I_C= 5\text{A}; V_{CE}= 1.75\text{V}$	10		50	
f_T	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A}; V_{CE}= 10\text{V}$		10		MHz