

isc Silicon NPN Power Transistor

BU105

DESCRIPTION

- High Voltage- $V_{CER}= 1500V(\text{Min.})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(\text{sat})}= 5.0V(\text{Max.})@ I_C= 2.5A$

APPLICATIONS

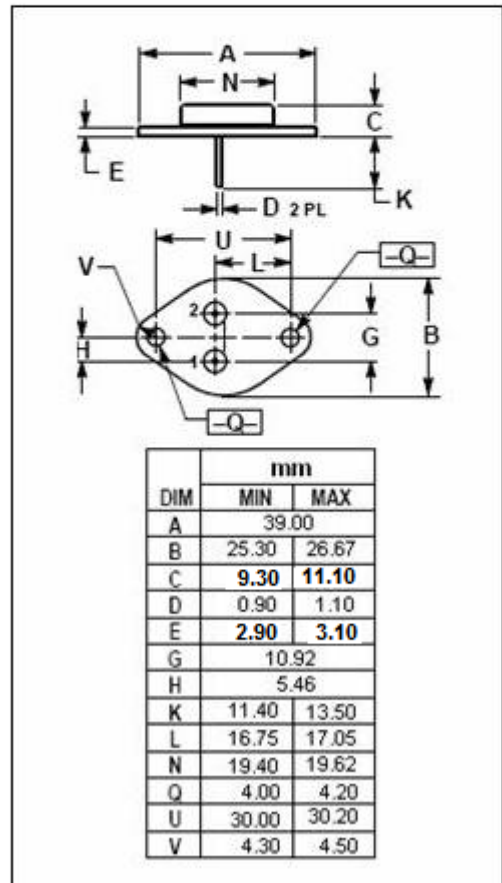
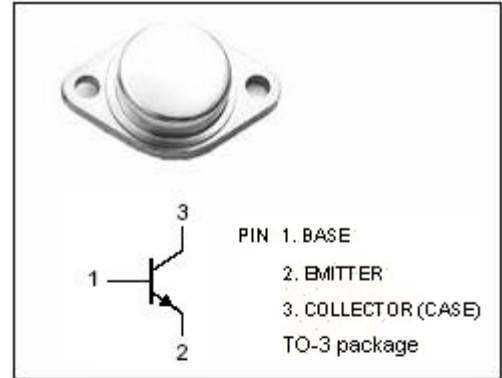
- Designed for use in line operated B&W(19 and 20 inch 110°C deflection circuits) or color (11 and 14 inch 90°C deflection circuits TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CER}	Collector-Emitter Voltage $R_{BE}= 100 \Omega$	1500	V
V_{CEO}	Collector-Emitter Voltage	750	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2.5	A
P_C	Collector Power Dissipation @ $T_C= 90^\circ\text{C}$	10	W
T_J	Junction Temperature	115	°C
T_{stg}	Storage Temperature	-65~115	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	°C/W



isc Silicon NPN Power Transistor**BU105****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0$	750			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=100\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2.5\text{A}; I_B=1.5\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2.5\text{A}; I_B=1.5\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1500\text{V}; V_{BE}=0$			1.0	mA
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=0.1\text{MHz}$		65		pF
f_T	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=5\text{V}$		7.5		MHz
t_f	Fall Time	$I_C=2\text{A}; I_{B1}=1.5\text{A}; L_B=12\mu\text{H}$		0.5		μs