

**isc Silicon NPN Power Transistor**
**BU105**
**DESCRIPTION**

- High Voltage- $V_{CER}= 1300V(\text{Min.})$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(\text{sat})}= 5.0V(\text{Max.})@ I_C= 2.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

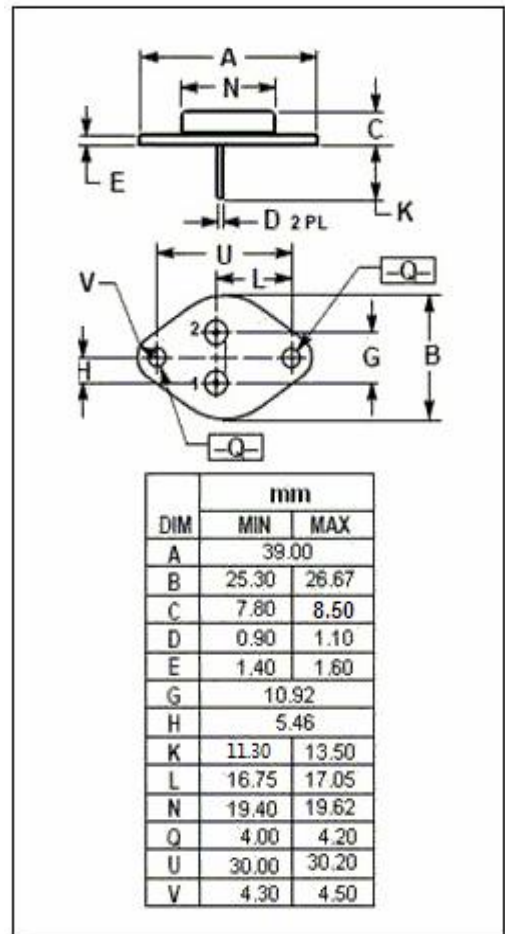
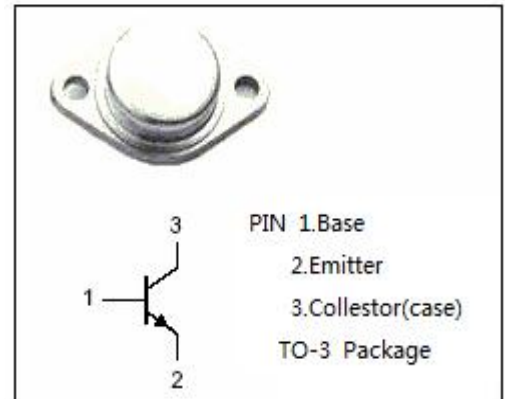
- Designed for use in line operated B&W(19 and 20 inch 110°C deflection circuits ) or color ( 11 and 14 inch 90°C deflection circuits TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1300	V
$V_{CER}$	Collector-Emitter Voltage $R_{BE}= 100\ \Omega$	1300	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<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	750			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2.5A; I <sub>B</sub> = 1.5A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 2.5A; I <sub>B</sub> = 1.5A			1.5	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 1300V; V <sub>BE</sub> = 0			1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 2A ; V <sub>CE</sub> = 5V	2			
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f <sub>test</sub> = 0.1MHz		65		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 5V		7.5		MHz
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 2A; I <sub>B1</sub> = 1.5A; L <sub>B</sub> = 12 μ H		0.5		μ s

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