

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

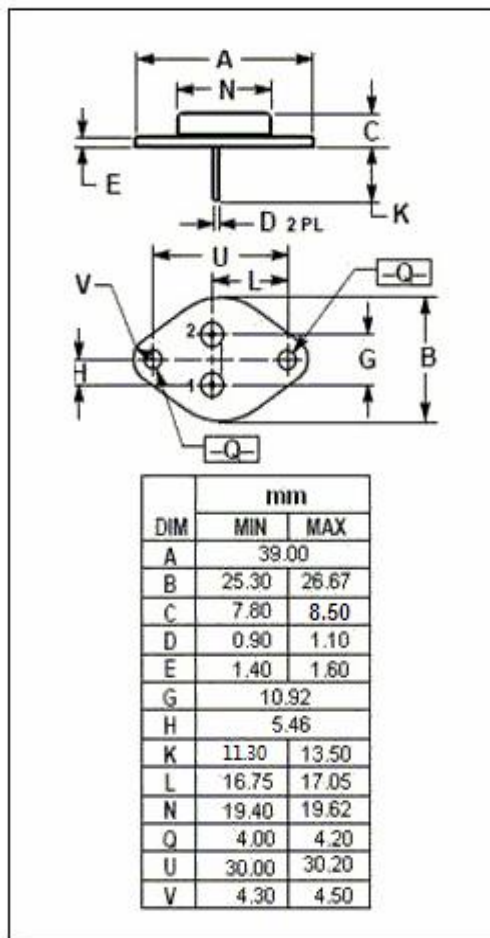
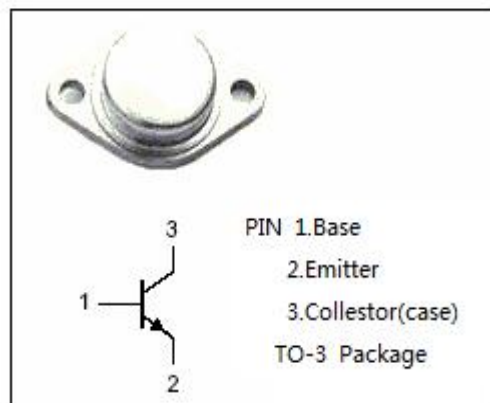
- Designed for use in line operated B&W(19 and 20 inch 110°C deflection circuits) or color (11 and 14 inch 90°C deflection circuits TV receivers.

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	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~115	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



isc Silicon NPN Power Transistor**BU105****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

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

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