

isc Silicon NPN Power Transistor

BU103A

DESCRIPTION

- Continuous Collector Current- $I_C=1A$
- Collector Power Dissipation-
: $P_C=30W$ @ $T_C=25^{\circ}C$

APPLICATIONS

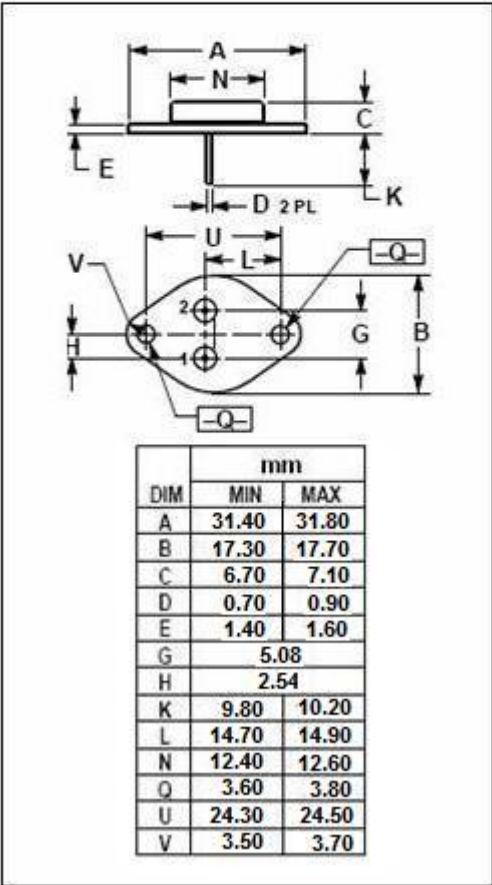
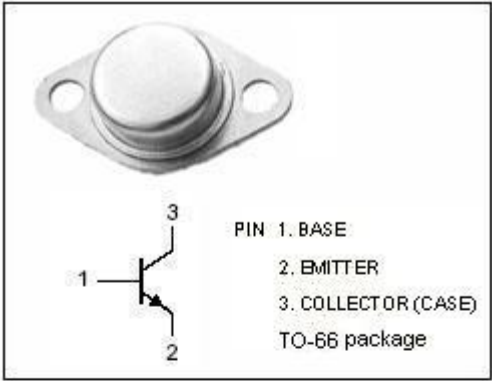
- Designed for TV vertical applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CER}	Collector-Emitter Voltage $R_{BE}=220\Omega$	120	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	30	W
T_J	Junction Temperature	200	$^{\circ}C$
T_{stg}	Storage Temperature	-65~200	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	6.0	$^{\circ}C/W$



isc Silicon NPN Power Transistor**BU103A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CER}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}$; $R_{BE}=220\ \Omega$	120			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=0.2\text{A}$; $I_B=20\text{mA}$			1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=80\text{V}$; $I_E=0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$			0.1	mA
h_{FE}	DC Current Gain	$I_C=0.2\text{A}$; $V_{CE}=10\text{V}$	50		200	
C_{OB}	Collector Output Capacitance	$I_E=0$; $V_{CB}=10\text{V}$; $f=1\text{MHz}$		50		pF
f_T	Current Gain-Bandwidth Product	$I_C=0.1\text{A}$; $V_{CE}=10\text{V}$		100		MHz