

isc Silicon NPN Power Transistors

BU113

DESCRIPTION

- Collector-Emitter Voltage-
: $V_{CEX(SUS)} = 700V(\text{Min.})$
- Collector Current- $I_C = 10A$

APPLICATIONS

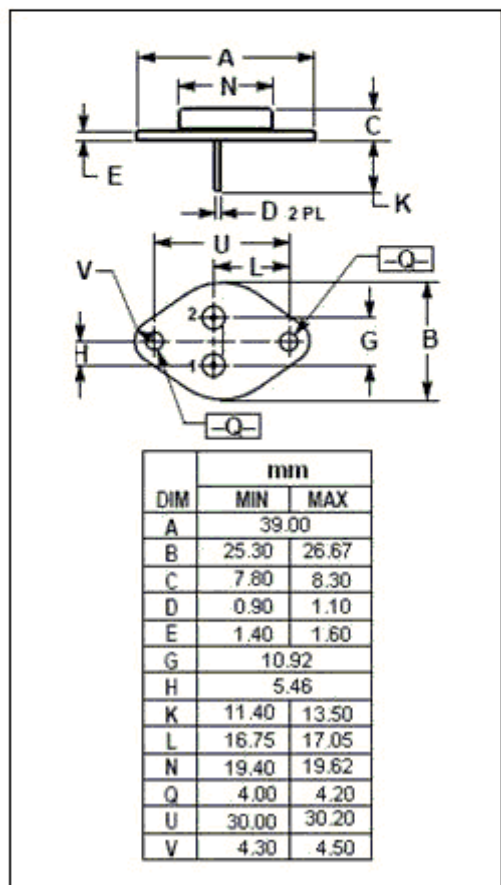
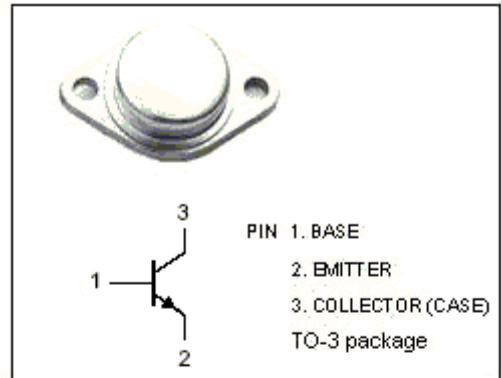
- Designed for use in horizontal deflection output state of color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Emitter Voltage	700	V
V_{CEX}	Collector-Emitter Voltage $V_{BE} = -5V$	700	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	4	A
P_C	Collector Power Dissipation @ $T_C = 90^\circ\text{C}$	30	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

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 Transistors**BU113****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Collector-Base Breakdown Voltage	$I_E=30\text{mA}; I_C=0$	10			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=2\text{A}$			3.0	V
I_{CEX}	Collector Cutoff Current	$V_{CE}=250\text{V}; V_{BE}=-5\text{V}$ $V_{CE}=700\text{V}; V_{BE}=-5\text{V}$			2.0 10	mA
h_{FE}	DC Current Gain	$I_C=8\text{A}; V_{CE}=2\text{V}$	7			
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=4\text{V}$		6		MHz
C_{OB}	Collector Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		250		pF
t_f	Fall Time	$I_C=8\text{A}; I_{B1}=-I_{B2}=1.6\text{A}$			1.0	μs