

Silicon NPN Power Transistor

BU205

DESCRIPTION

- High Voltage- $V_{CEX} = 1500V(\text{Min.})$
- Collector Current- $I_C = 2.5A$

APPLICATIONS

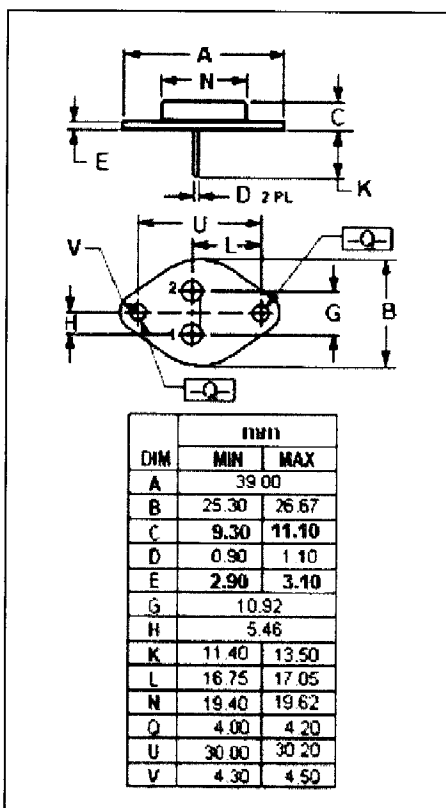
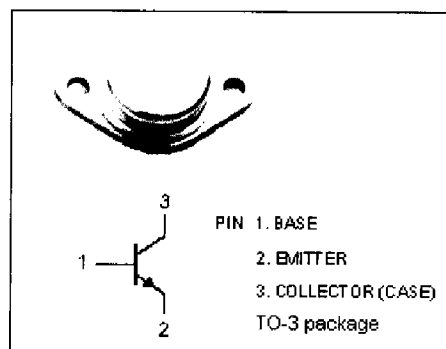
- Designed for use in large screen color deflection circuits .

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

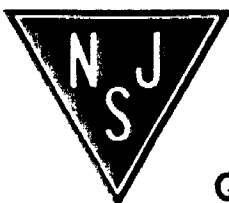
SYMBOL	PARAMETER	VALUE	UNIT
V_{CEX}	Collector-Emitter Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2.5	A
I_{CM}	Collector Current-Peak	3.0	A
I_B	Base Current-Continuous	1.0	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ C$	36	W
T_J	Junction Temperature	115	$^\circ C$
T_{stg}	Storage Temperature	-65~115	$^\circ C$

THERMAL CHARACTERISTICS

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



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.



Silicon NPN Power Transistor**BU205****ELECTRICAL CHARACTERISTICS** **$T_C=25^{\circ}\text{C}$ unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}$	700			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=1\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=1\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1500\text{V}; V_{BE}=0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5.0\text{V}; I_C=0$			10	mA
h_{FE}	DC Current Gain	$I_C=2\text{A}; V_{CE}=5\text{V}$	2			
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{\text{test}}=1\text{MHz}$		50		pF
f_T	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=5\text{V}; f_{\text{test}}=1\text{MHz}$		4		MHz
t_f	Fall Time	$I_C=2\text{A}; I_B=1\text{A}; L_B=25\mu\text{H}$		0.65		μs