

isc Silicon NPN Power Transistor

BU508A

DESCRIPTION

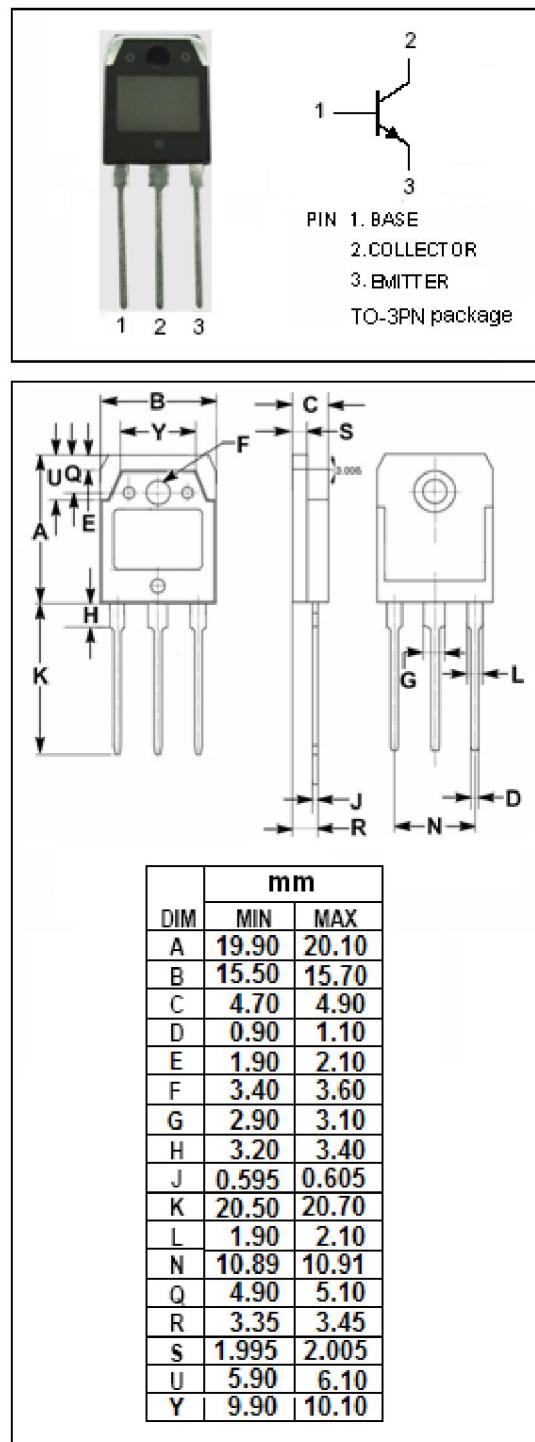
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 800V$ (Min)
- High Power Dissipation-
: $P_D = 125W @ T_C = 25^\circ C$

APPLICATIONS

- Designed for use in large screen color deflection circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector- Emitter Voltage($V_{BE}= 0$)	1500	V
V_{CEO}	Collector-Emitter Voltage	900	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	8	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current- Continuous	4	A
I_{BM}	Base Current-Peak	6	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	125	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$
SYMBOL	PARAMETER	MAX	UNIT
$R_{th,j-c}$	Thermal Resistance,Junction to Case	1.0	$^\circ C/W$



isc Silicon NPN Power Transistor**BU508A****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(\text{sus})}$	Collector-Emitter Sustaining Voltage	$I_C = 100\text{mA}; I_B = 0$	900			V
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C = 4.5\text{A}; I_B = 2.0\text{A}$			1.0	V
$V_{BE(\text{sat})}$	Base-Emitter Saturation Voltage	$I_C = 4.5\text{A}; I_B = 2.0\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE} = 1500\text{V}; V_{BE} = 0$ $V_{CE} = 1500\text{V}; V_{BE} = 0; T_c = 125^\circ\text{C}$			0.1 2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5.0\text{V}; I_C = 0$			10	mA
h_{FE-1}	DC Current Gain	$I_C = 0.1\text{A}; V_{CE} = 5\text{V}$	6		30	
h_{FE-2}	DC Current Gain	$I_C = 4.5\text{A}; V_{CE} = 5\text{V}$	2.25			
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}; f_{\text{test}} = 0.1\text{MHz}$		125		pF
f_T	Current-Gain—Bandwidth Product	$I_C = 0.1\text{A}; V_{CE} = 5\text{V}; f_{\text{test}} = 1.0\text{MHz}$		7		MHz

Switching times

t_{stg}	Storage Time	$I_C = 4.5\text{A}, I_{B1} = 1.8\text{A}; L_B = 10\ \mu\text{H}$		8.0		μs
t_f	Fall Time			0.5		μs

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