

Silicon NPN Power Transistor

BU508V

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 700V$ (Min)
- High Power Dissipation-
: $P_D = 125W @ T_C = 25$

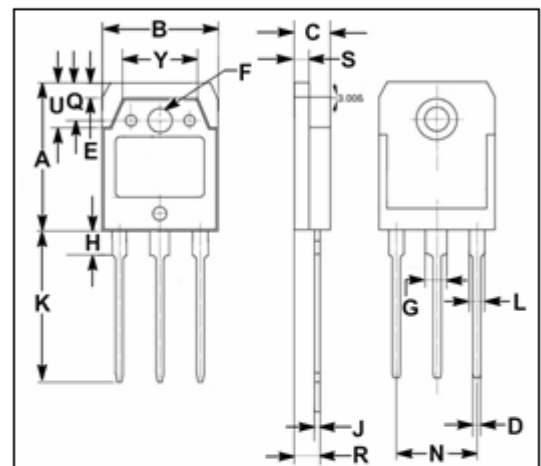
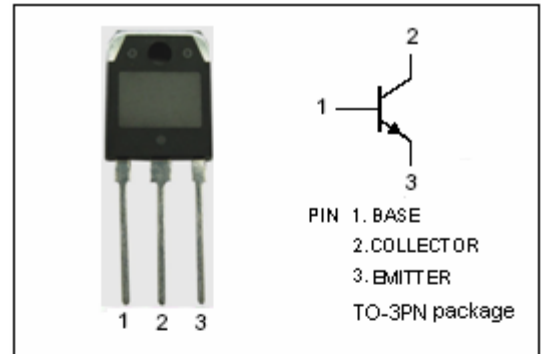
APPLICATIONS

- Designed for use in large screen color deflection circuits.

ABSOLUTE MAXIMUM RATINGS($T_a = 25$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector- Emitter Voltage($V_{BE} = 0$)	1200	V
V_{CEO}	Collector-Emitter Voltage	700	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 @ $T_C = 25$	125	W
T_J	Junction Temperature	150	
T_{stg}	Storage Temperature Range	-65~150	

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.0	/W



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.10
H	3.20	3.40
J	0.595	0.605
K	20.50	20.70
L	1.90	2.10
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

Silicon NPN Power Transistor

BU508V

ELECTRICAL CHARACTERISTICS

 $T_C=25$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100mA; I_B=0$	700			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4.5A; I_B=2.0A$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4.5A; I_B=2.0A$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1200V; V_{BE}=0$ $V_{CE}=1200V; V_{BE}=0; T_C=125$			0.1 2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5.0V; I_C=0$			10	mA
h_{FE-1}	DC Current Gain	$I_C=0.1A; V_{CE}=5V$	6		30	
h_{FE-2}	DC Current Gain	$I_C=4.5A; V_{CE}=5V$	2.25			
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10V; f_{test}=0.1MHz$		125		pF
f_T	Current-Gain—Bandwidth Product	$I_C=0.1A; V_{CE}=5V; f_{test}=1.0MHz$		7		MHz

Switching times

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