

SPTECH Silicon NPN Power Transistor

BU508A

DESCRIPTION

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

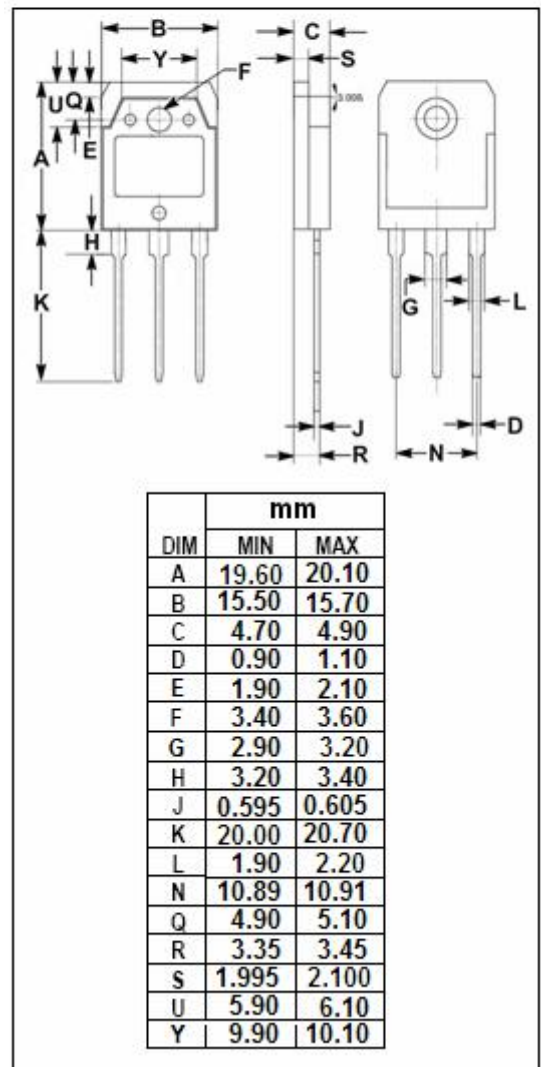
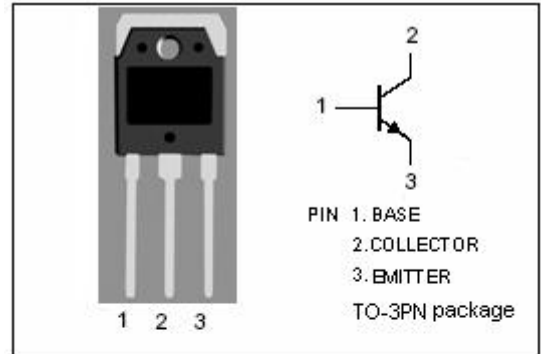
APPLICATIONS

- 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	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 @ $T_C = 25^\circ C$	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	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ; 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			1.3	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1500V ; V _{BE} = 0 V _{CE} = 1500V ; V _{BE} = 0; T _C =125°C			0.1 2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5.0V ; I _C = 0			0.1	mA
h _{FE}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	6		30	
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

★:Pulsed: Pulse duration = 300 ms, duty cycle 1.5 %