

SPTECH Silicon NPN Power Transistor

BU2508A

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 700V$ (Min)
- High Switching Speed

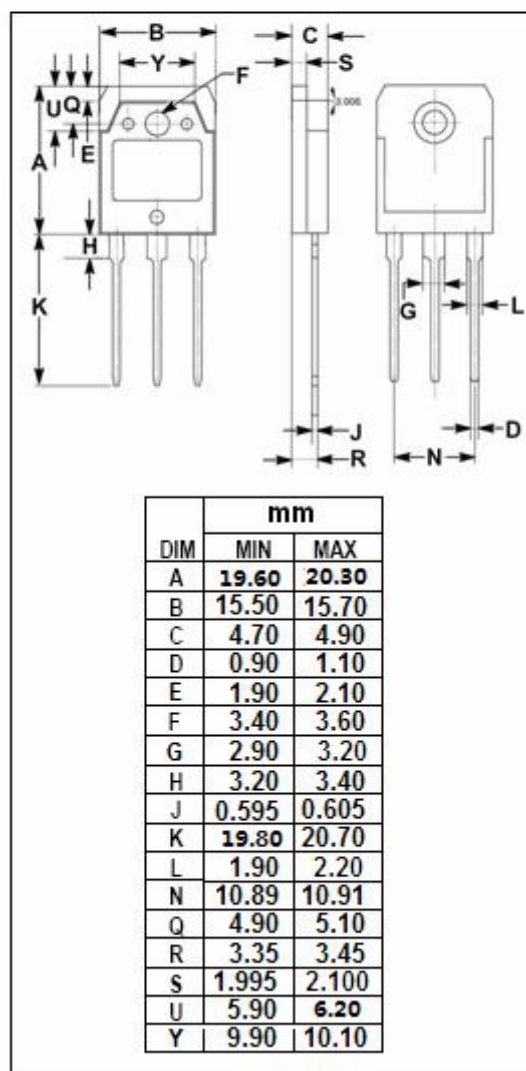
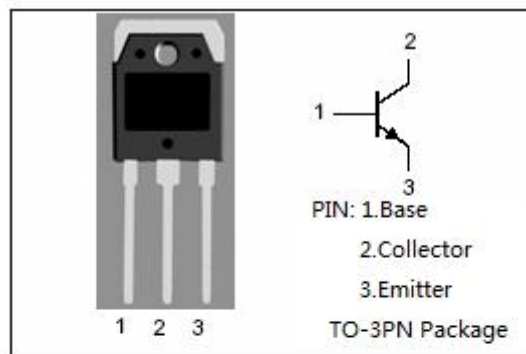
APPLICATIONS

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

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	7.5	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

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 50\text{mA}$; $I_B= 0$, $L= 25\text{mH}$	700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 1\text{mA}$; $I_C= 0$	7.5			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 4.5\text{A}$; $I_B= 1.1\text{A}$			5.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 4.5\text{A}$; $I_B= 1.29\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 4.5\text{A}$; $I_B= 1.7\text{A}$			1.3	V
I_{CES}	Collector Cutoff Current	$V_{CE}= 1500\text{V}$; $V_{BE}= 0$ $V_{CE}= 1500\text{V}$; $V_{BE}= 0$; $T_C=125^{\circ}\text{C}$			1.0 2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 7.5\text{V}$; $I_C= 0$			1.0	mA
h_{FE-1}	DC Current Gain	$I_C= 0.1\text{A}$; $V_{CE}= 5\text{V}$	6		26	
h_{FE-2}	DC Current Gain	$I_C= 4.5\text{A}$; $V_{CE}= 1\text{V}$	4			
C_{OB}	Output Capacitance	$I_E= 0$; $V_{CB}= 10\text{V}$; $f_{\text{test}}= 1\text{MHz}$		80		pF