



## NPN BU2508AF

### NPN SILICON POWER TRANSISTORS

The BU2508AF is silicon power transistor mounted in Jedec TO-3PF plastic package. They are designed for use in horizontal deflection circuits of color TV receivers. Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	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 @ $T_C=25^{\circ}C$	45	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}C$

#### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	2.5	$^{\circ}C/W$



## NPN BU2508AF

### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 100mA$ $I_B = 0, L = 25mH$	700	-	-	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1mA$ $I_C = 0$	7.5	-	-	V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4.5A$ $I_B = 1.1A$	-	-	1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 4.5A$ $I_B = 1.7A$	-	-	1.1	V
$I_{CES}$	Collector Cutoff Current	$V_{CE} = 1500V$ $V_{BE} = 0$	-	-	1.0	mA
		$V_{CE} = 1500V, V_{BE} = 0$ $T_C = 125^\circ C$	-	-	2.0	
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 7.5V$ $I_C = 0$	-	-	1.0	mA
$h_{FE}$	DC Current Gain	$I_C = 0.1A$ $V_{CE} = 5V$	-	13	-	-
$h_{FE}$	DC Current Gain	$I_C = 4.5A$ $V_{CE} = 1V$	4	-	7	-
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = 10V$ $f_{test} = 1MHz$	-	80	-	pF

### Switching times

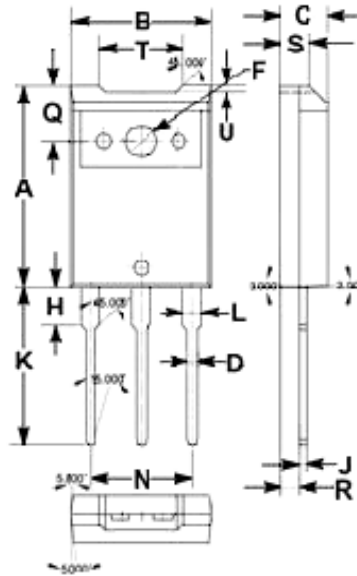
$t_{stg}$	Storage Time	$I_C = 4.5A, I_{B(end)} = 1.1A$ $L_B = 6\mu H$	-	-	6.0	$\mu s$
$t_f$	Fall Time	$-V_{BB} = 4V; (-dl_B/dt = 0.6A/\mu s)$	-	-	0.6	$\mu s$



## NPN BU2508AF

### MECHANICAL DATA CASE TO-3P (TO-218)

Dim.	mm	
	MIN	MAX
A	20.70	21.30
B	14.70	15.30
C	4.80	5.20
D	0.90	1.10
F	3.20	3.40
H	3.70	4.30
J	0.50	0.70
K	16.40	17.00
L	1.90	2.10
N	10.80	11.00
Q	5.60	6.00
R	1.80	2.20
S	3.10	3.50
T	8.70	9.30
U	0.55	0.75



Pin 1 :	Emitter
Pin 2 :	Base
Pin 3 :	Collector



Revised september 2012

Information furnished is believed to be accurate and reliable. However, Comset Semiconductors assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may results from its use. Data are subject to change without notice. Comset Semiconductors makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Comset Semiconductors assume any liability arising out of the application or use of any product and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Comset Semiconductors' products are not authorized for use as critical components in life support devices or systems.