

isc Silicon NPN Power Transistor

BU4506AF

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 800V$ (Min)
- High Switching Speed

APPLICATIONS

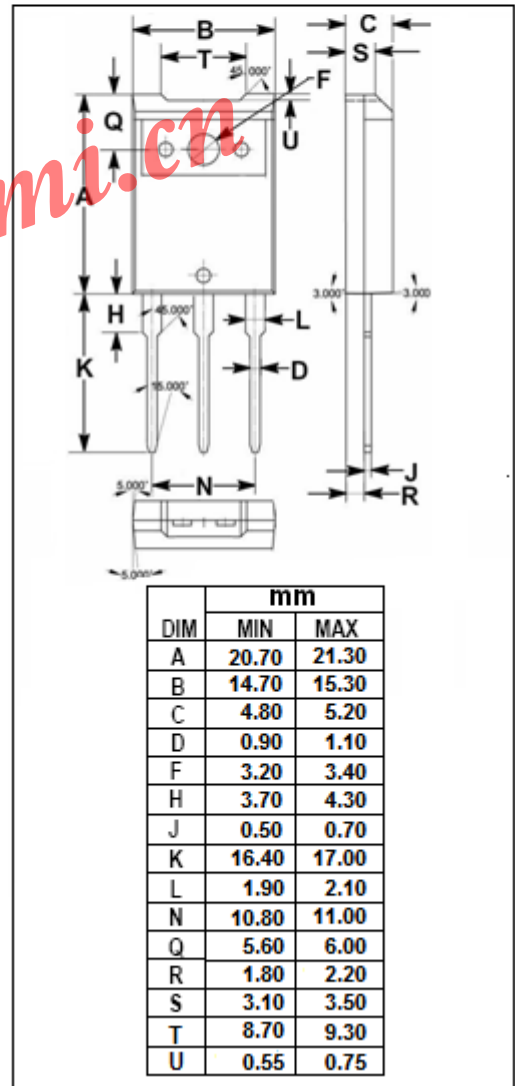
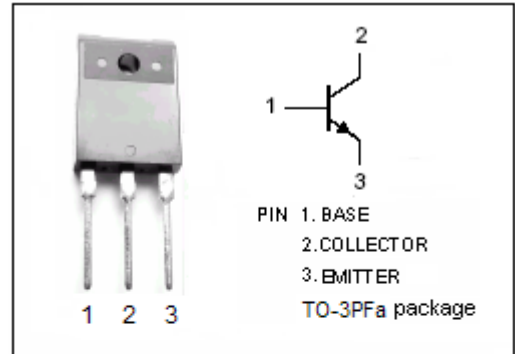
- Designed for use in horizontal deflection circuits of color TV receivers.

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	800	V
V_{EBO}	Emitter-Base Voltage	7.5	V
I_C	Collector Current- Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current- Continuous	3	A
I_{BM}	Base Current-Peak	5	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	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.8	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0, L=25\text{mH}$	800			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	7.5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.75\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.75\text{A}$			0.98	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	$I_C=0.5\text{A}; V_{CE}=5\text{V}$		10		
h_{FE-2}	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	4.2		7.3	

Switching times (16kHz line deflection circuit)

t_{stg}	Storage Time	$I_C=3\text{A}, I_{B1}=0.6\text{A}; I_{B2}=-1.5\text{A}$			4.6	μs
t_f	Fall Time				0.45	μs