

isc Silicon NPN Power Transistor

BU4506AF

DESCRIPTION

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

APPLICATIONS

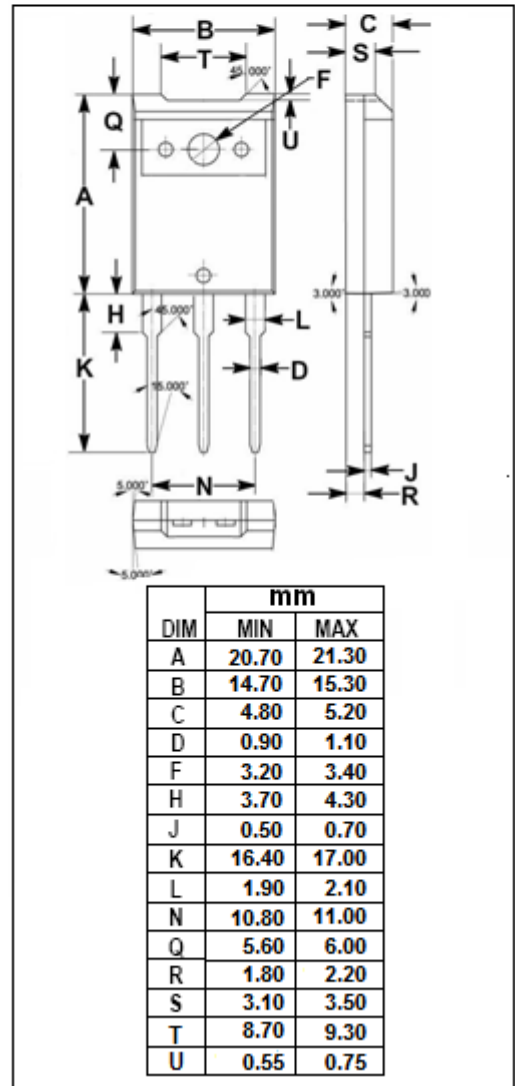
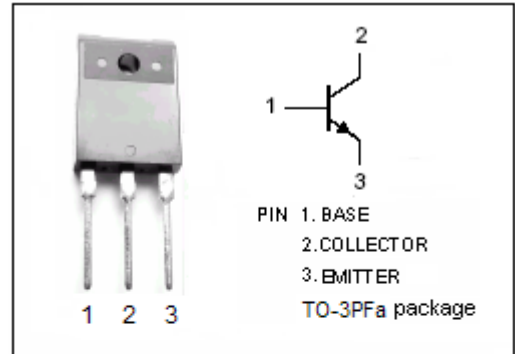
- Designed for use in horizontal deflection circuits of color TV receivers.

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	$^{\circ}C/W$



isc Silicon NPN Power Transistor**BU4506AF****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 = 100mA; I _B = 0, L= 25mH	800			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 = 3A; I _B = 0.75A			3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 0.75A			0.98	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1500V; V _{BE} = 0 V _{CE} = 1500V; V _{BE} = 0; T _C =125°C			1.0 2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7.5V; I _C = 0			1.0	mA
h _{FE-1}	DC Current Gain	I _C = 0.5A; V _{CE} = 5V		10		
h _{FE-2}	DC Current Gain	I _C = 3A; V _{CE} = 5V	4.2		7.3	

Switching times (16kHz line deflection circuit)

t _{stg}	Storage Time	I _C = 3A, I _{B1} = 0.6A; I _{B2} = -1.5A			4.6	μs
t _f	Fall Time				0.45	μs