

SPTECH Silicon NPN Power Transistor

BU406

DESCRIPTION

- High Voltage: $V_{CEV} = 400V(\text{Min})$
- Low Saturation Voltage-
: $V_{CE(\text{sat})} = 1.0V(\text{Max}) @ I_C = 5A$

APPLICATIONS

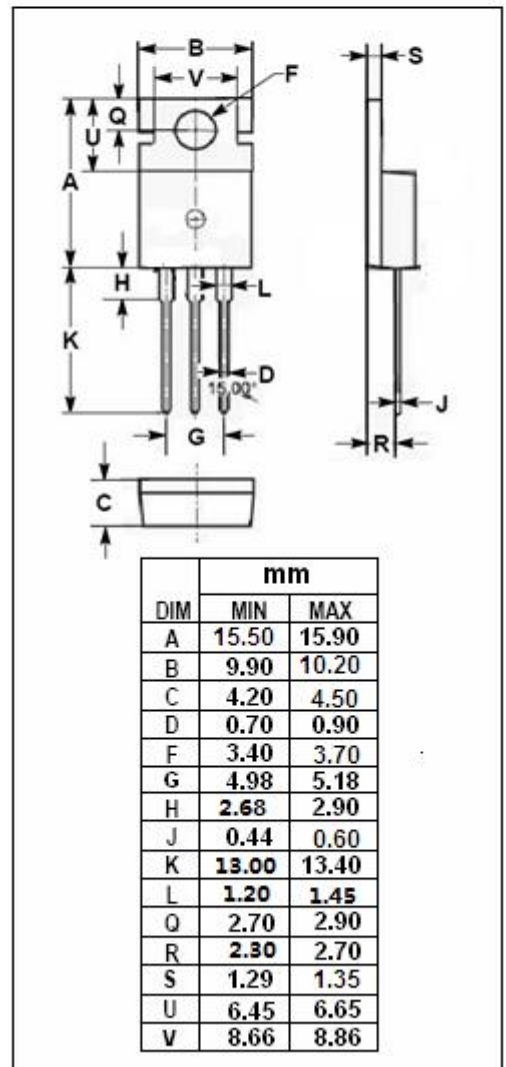
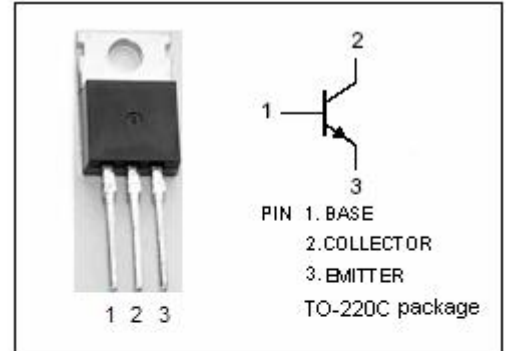
- Designed for use in horizontal deflection output stages of TV's and CRT's

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEV}	Collector-Emitter Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CP}	Collector Current-Peak Repetitive	10	A
I_{CP}	Collector Current- Peak (10ms)	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th j-c}}$	Thermal Resistance, Junction to Case	2.08	$^\circ\text{C/W}$
$R_{\text{th j-a}}$	Thermal Resistance, Junction to Ambient	70	$^\circ\text{C/W}$



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 = 50mA ; I _B = 0	200			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			1.2	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0			1.0	mA
h _{FE}	DC Current Gain	I _C = 2A; V _{CE} = 5V	40		120	
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V, f _{test} = 20MHz	10			MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		80		pF
t _f	Fall Time	I _C = 5A; I _{B1} = -I _{B2} = 0.5A, L= 150 μ H V _{CC} = 40V			0.75	μ s