

Silicon NPN Darlington Power Transistor

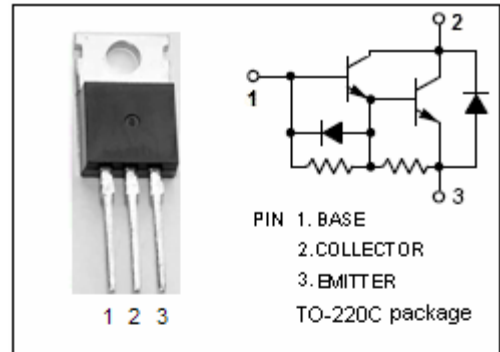
BU806

DESCRIPTION

- High Voltage: $V_{CEV} = 400V(\text{Min})$
- Low Saturation Voltage-
: $V_{CE(\text{sat})} = 1.5V(\text{Max}) @ I_C = 5A$

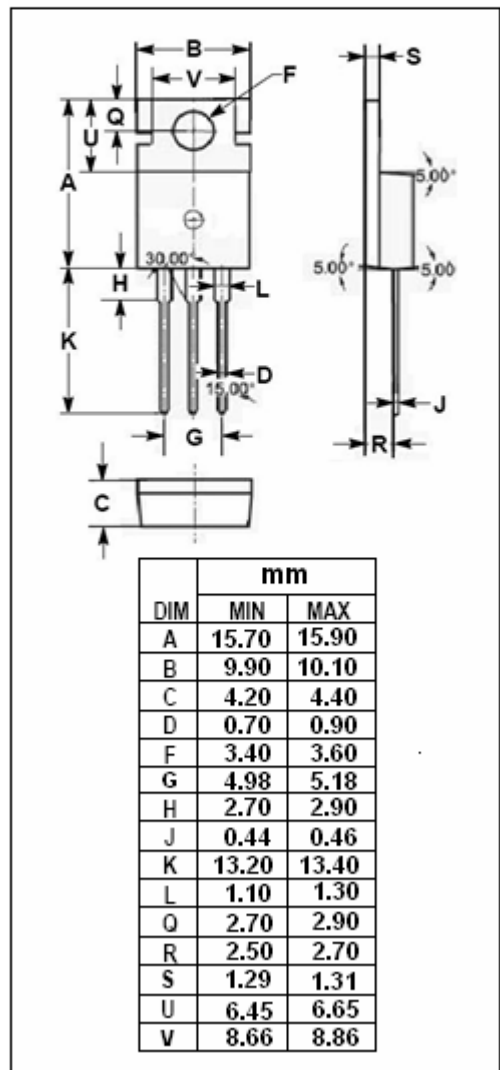
APPLICATIONS

- Designed for use in horizontal deflection circuits in TV's and CRT's.



ABSOLUTE MAXIMUM RATINGS($T_a=25$)

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	8	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	2	A
P_C	Collector Power Dissipation @ $T_C=25$	60	W
T_J	Junction Temperature	150	
T_{stg}	Storage Temperature Range	-65~150	



THERMAL CHARACTERISTICS

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

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ELECTRICAL CHARACTERISTICS

T_C=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 100mA ;I _B = 0	200			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 50mA			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 50mA			2.4	V
I _{CES}	Collector Cutoff Current	V _{CE} = RatedV _{CBO} ; V _{BE} = 0			0.1	mA
I _{CEV}	Collector Cutoff Current	V _{CE} = RatedV _{CEV} ; V _{BE(off)} = 6V			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			3.0	mA
V _{ECF}	C-E Diode Forward Voltage	I _F = 4A			2.0	V

Switching Times

t _{on}	Turn-On Time	I _C = 5A; I _{B1} = 50mA; I _{B2} = -0.5A V _{CC} = 100V		0.35		μs
t _s	Storage Time			0.55		μs
t _f	Fall Time			0.20		μs