

MEDIUM Voltage & Fast Switching Darlington Transistor

BU806

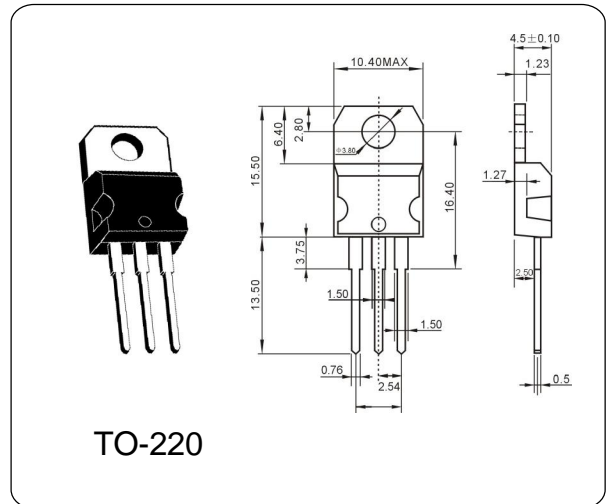
DESCRIPTION

The devices are silicon Epitaxial Planar NPN power transistors in Darlington configuration with integrated base-emitter speed-up diode, mounted in TO-220 plastic package.

They can be used in horizontal output stages of 110 °CRT video displays.

Absolute Maximum Ratings (Ta = 25°C)

Parameter	I	Value	Unit
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	200	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	8.0	A
Base Current	I_B	2.0	A
Total Dissipation at	P_{tot}	60	W
Max. Operating Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C



Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CES}	$V_{CE}=400V, V_{BE0}=0$	—	—	100	uA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=6V, I_C=0$	—	—	3.5	mA
Collector-Emitter Sustaining Voltage	V_{CEO}	$I_C=100mA, I_B=0$	200	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=5.0A$	200	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5.0A, I_B=50mA$	—	—	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5.0A, I_B=50mA$	—	—	2.4	V
Damper Diode Forward Voltage	V_F	$I_F=4.0A$	—	—	2	V
Storage Time	T_S	$I_C=5A, I_B=0.5A$	—	0.55	—	us