

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Sustaining Voltage (V _C = 50 mA _{dc} , I _B = 0)	V _{CE(sus)}	750	—	—	V _{dc}
Collector Cutoff Current (V _{CE} = 1500 V _{dc} , V _{BE} = 0)	I _{CES}	—	—	0.25	mA _{dc}
Emitter Cutoff Current (V _{BE} = 5.0 V _{dc} , I _C = 0)	I _{EBO}	—	—	0.1	mA _{dc}
ON CHARACTERISTICS (1)					
Collector-Emitter Saturation Voltage (I _C = 5.0 A _{dc} , I _B = 1.0 A _{dc})	V _{CE(sat)}	—	—	5.0	V _{dc}
Base Emitter Saturation Voltage (I _C = 5.0 A _{dc} , I _B = 1.0 A _{dc})	V _{BE(sat)}	—	—	1.5	V _{dc}
Second Breakdown Collector Current with Base Forward Biased	I _{S/b}	—	—	See Figure 1	
SWITCHING CHARACTERISTICS					
Fall Time (I _C = 5.0 A _{dc} , I _{B1} = 1.0 A _{dc} , L _B = 8.0 μH)	t _f	—	0.4	1.0	μs

(1) Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle = 2%.

FIGURE 2 – DC CURRENT GAIN

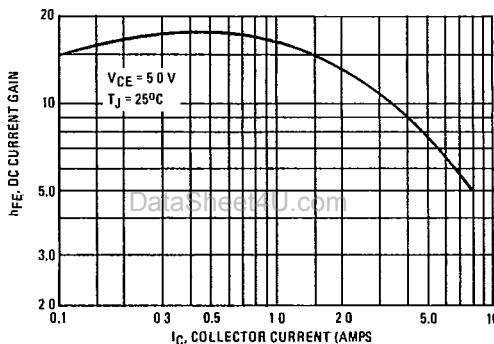
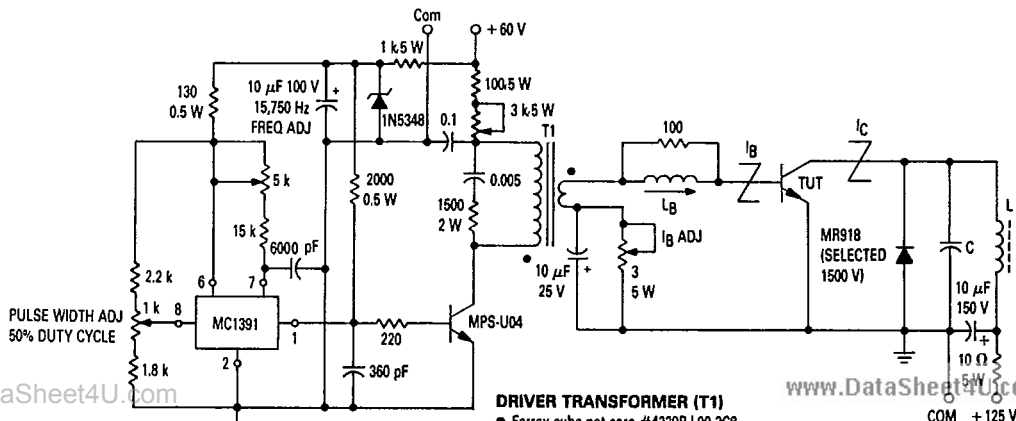


FIGURE 3 – SWITCHING TIMES TEST CIRCUIT



DRIVER TRANSFORMER (T1)

- Ferroxcube pot core #4229P-L00-3C8
- Adjust gap for primary inductance L_p = 70 mH (approximately 5 mil spacer)
- Primary 230T #28 AWG (5 layers)
- Secondary 15T #22 AWG (1 layer)
- Secondary leakage inductance should be less than 3 μH
- Use 3 mil mylar tape between each winding layer

I _C A	L mH	C μF
5.0	0.576	0.018