ELECTRONICS, INC.
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NTE7073
Integrated Circuit
Hybrid Switching Regulator

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

TR1 Collector–Emitter Voltage (Note 1), V_{CEX} 500V
Applying Voltage, Pin4–2, $V_{2–4}$ 12V
Applying Voltage, Pin2–5, $V_{2–5}$ 12V
Applying Voltage, Pin5–9, $V_{5–9}$ 30V
Applying Voltage, Pin7–6, $V_{7–6}$ 5V
TR1 Collector Current, $I_{C(TR1)}$
  Continuous 10A
  Pulsed 20A
TR4 Collector Current, $I_{C(TR4)}$ 500mA
D2 Forward Current, $I_{IN(D2)}$ 500mA
D3 Forward Current, $I_{IN(D3)}$ 100mA
Maximum Power Dissipation (Note 2), P_D
  No Fin 3.2W
  T_{C1} = +100°C 2.7W
TR1 Junction Temperature, T_J . . . . . +150°C
Frame Temperature Range (Operating, Note 3), T_{C2} . . . . . –20° to +125°C
Storage Temperature Range, T_{stg} . . . . . –30° to +125°C
Maximum Output Current (V_O = 115V), I_O 1.7A

Note 1. Reference: V_{CEO} = 400V Min

Note 2. T_{C1} denotes the temperature of resin beneath the Power Transistor.

Note 3. T_{C2} denotes the internal frame temperature. Recommended T_{C2} = +100°C.

Electrical Characteristics (TR1 Characteristics): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Saturation Voltage	$V_{CE(sat)}$	I_C = 8A, I_B = 1.2A	–	–	0.5	V
	$V_{BE(sat)}$	I_C = 6A, I_B = 1.2A	–	–	1.5	V
Collector Cutoff Current	I_{CBO}	V_{CE} = 500V, V_{BE} = 1.5V	–	–	1.8	mA
DC Current Gain	h_{FE}	I_C = 1A, V_{CE} = 4V	15	–	40	
Power Transistor Thermal Resistance	$R_{\Theta JC2}$	Between Junction and Internal Frame	–	0.7	–	°C/W
Switching Time	t_s		–	–	10.0	µs
	t_f		–	–	0.6	µs

Pin Connection Diagram
(Front View)



