TRN-AA25N-048L-033S

Electrical characteristics are guaranteed over the ambient temperature range (-40 to 60°C), for the full range of input voltage (V_I), and for the full load range ($I_{0\ min}$ to $I_{0\ rated}$) unless otherwise noted.

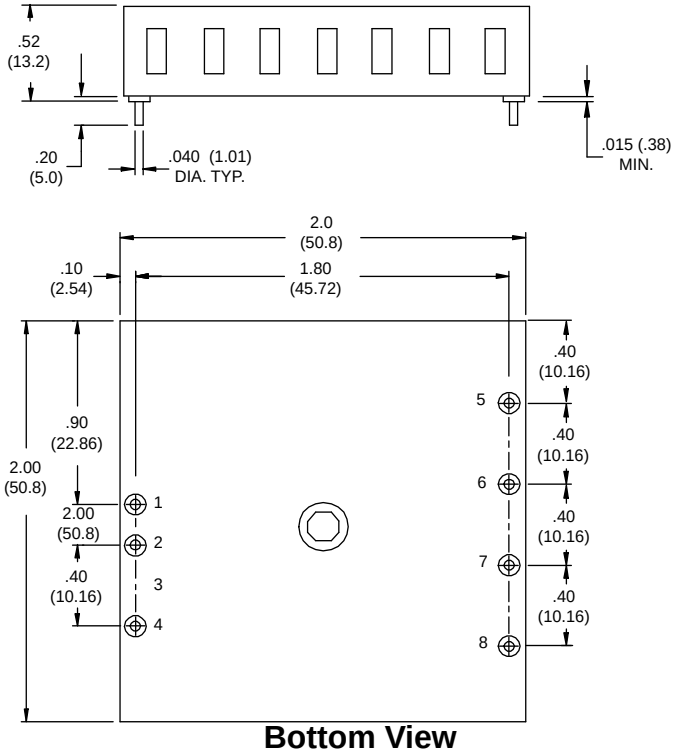
V_I , V_o and I_0 are actual operating conditions, $I_{o\ rated}$ is nominal rating.

Electrical Specifications - AA25N-048L-033S 36-75V in; 3.3V / 6A out

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Input Characteristics						
V_I	Input voltage		36	48	75	V
P_{IL}	No load input power	V_I=V_{Inom}		0.25		W
I_{IN}	Input current Per ETS300-132.2	VIN<36Vdc (See note 1)			150	%I_{In} at V_{nom}
C_{IN}	Input capacitance (internal)			1.8		µF
I_I	Input ripple current	V_I=$V_{nom,}$ $I_{o=}$$I_{o\ rated}$		10		mA p-p
Output Characteristics						
$P_{O\ max}$	Total output power				19.8	W
$V_{O1\ nom}$ $V_{O2\ nom}$ $V_{O3\ nom}$	Nominal (factory set) output voltage Output 1 Output 2 Output 3		3.267	3.3	3.333	 V V V
$I_{O1\ rated}$ $I_{O2\ rated}$ $I_{O3\ rated}$	Rated output current Output 1 Output 2 Output 3	$T_{Ambient}$= 60°C	0.6		6.0	 A A A
	Noise and ripple Output 1 Output 2 Output 3	Pk-pk, 20MHz bandwidth with a 0.1 µF ceramic capacitor connected across +V out and -V out.		35	50	 mV mV mV
V_{O1} V_{O2} V_{O3}	Load regulation	From 10% to 100% of rated output current			0.75	%V_{O1} %V_{02} %V_{03}
V_{O1} V_{O2} V_{O3}	Line regulation	V_{Imin} to V_{Imax} I_O = $I_{O\ typ}$			0.1	%V_{01} %V_{02} %V_{03}
$I_{O1\ lim}$ $I_{O2\ lim}$ $I_{O3\ lim}$	Current limit			8.3		A A A
	Temperature coefficient	Per °C baseplate temperature			±0.02	%$V_{O\ nom/°C}$
	Input - Output Capacitance			100		pF
η	Efficiency	V_I = 48V, I_O = $I_{O\ rated}$	79	80.5		%

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Output Characteristics - continued						
t_{on}	Turn-on time	V_I = 0 to V_{Inom}		75		mS
		V_I = 0 to $V_{I\ min}$		100		mS
		V_I = 0 to $V_{I\ max}$		50		mS
	Transient response (V_{O1} only) positive or negative step	I_O = 25 to 75% $I_{O\ rated}$@ 15 µs/A		2% 250µS		%$V_{O1\ nom}$
Isolation						
	Input-output isolation resistance	1500 VDC	50			M Ohm
	Input-case isolation resistance	N/A				M Ohm
	Output-case isolation resistance	1500 VDC	50			M Ohm
Control Signals						
V_{Out}	Output Voltage	2.5 < V_c <5.5 or open circuit V_C < 0.8V		3.3 0		V V
V adj	Output Voltage	External resistor attached	3.14	3.3	3.63	V
Environmental						
$T_{baseplate}$	Overtemperaure shutdown	Operating temp exceeds max rating		105		°C

Figure 1



Bottom View
All dimensions are inches (mm)

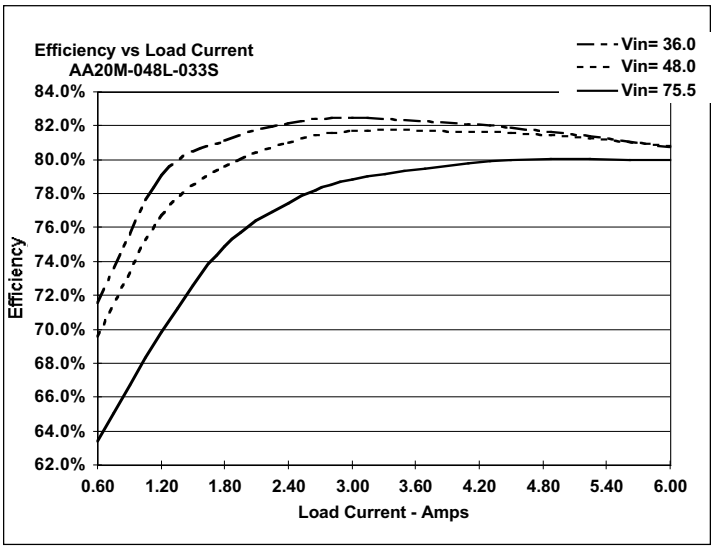
Pin Assignment

Single Output

1. +Vin
2. -Vin
3. No pin
4. Enable
5. No pin
6. +3.3V Out
7. +3.3V Rtn
8. Trim

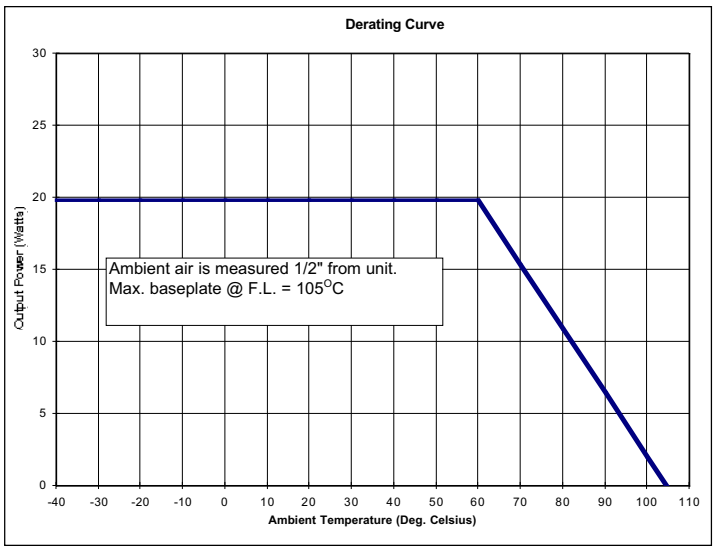
Efficiency (Typ)

Figure 2



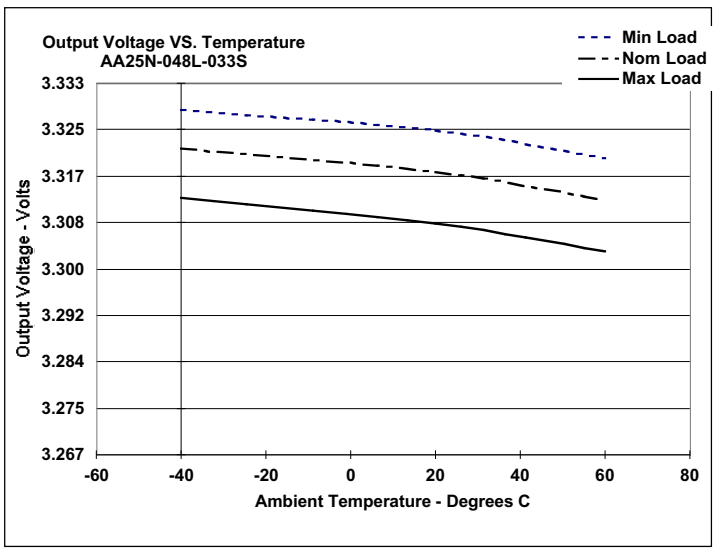
Output Power Derating

Figure 3



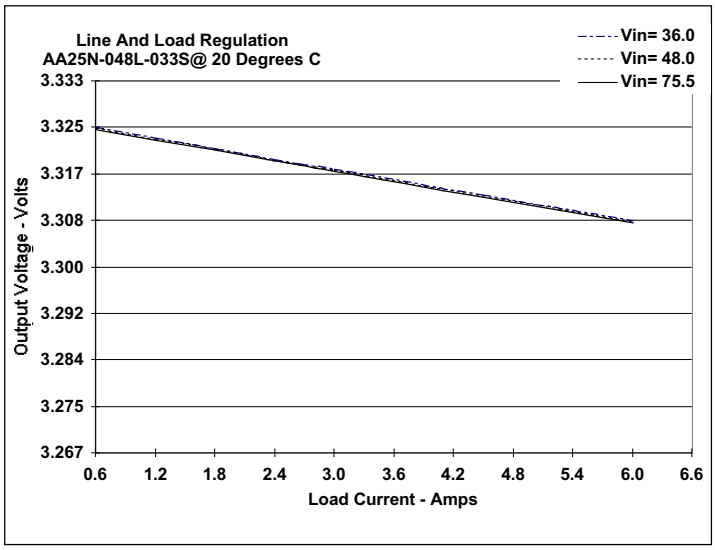
Output Regulation vs. Temperature and Loading (Typ)

Figure 4



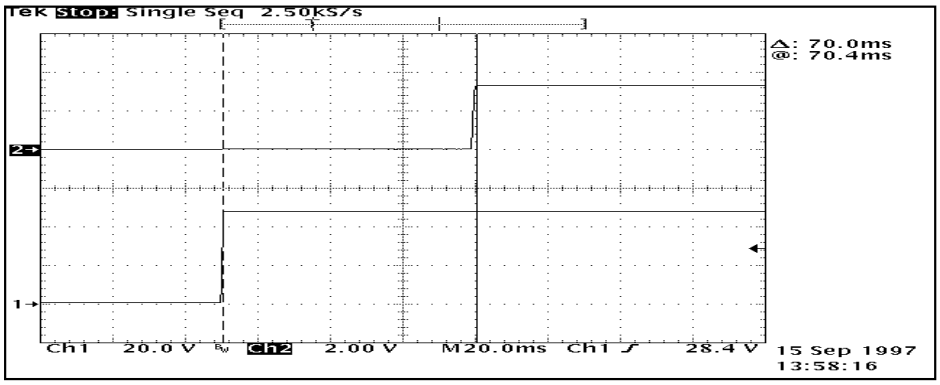
Output line and load regulaton (20°C Typ)

Figure 5



Turn on Characteristics

(Typ) **Figure 6**



Output Trim Methods

Figure 7