



Size: 60.70mm x 57.91mm x 13.30mm
(2.40in. x 2.28in. x 0.52in.)

MODEL SELECTION

Model Name	Vin(Vdc)	Vout(Vdc)	Io(Amps)	Watts
EPO-26SC48-A	36-75	26	8.5	225

FEATURES

- ▶ High Power Density - Up to 90W/in³
- ▶ Constant Frequency - 370kHz
- ▶ -40 to +100°C Operation
- ▶ 105°C Over Temperature
- ▶ High Efficiency
- ▶ Low Output Noise
- ▶ Industry-Standard Pinout
- ▶ Metal Baseplate
- ▶ 2:1 Input Voltage Range
- ▶ Thermal Protection
- ▶ Output Over Voltage Protection
- ▶ Current Limit/Short Circuit Protection
- ▶ Adjustable Output Voltage: 60% to 110% of V_{0,set}
- ▶ Remote Sense
- ▶ Logic ON/OFF
- ▶ Safety Agency Compliant

SPECIAL FEATURES

- ▶ Long Lead(0.23in)-LL
- ▶ Positive Logic Control-Pos.
(Remote Control For C-T)
- ▶ Through hole standoff-Th

SPECIFICATION

ABSOLUTE MAXIMUM RATINGS:

Exceeding absolute maximum ratings may cause permanent damage and reduce reliability

PARAMETER	MIN	MAX	UNITS	CONDITIONS
Input Voltage		62	Vdc	Continuous
Transient Input Voltage		80	Vdc	100 msec max.
Input/Output Isolation		1500	Vdc	
Operating Case Temperature	-40	100	°C	
Storage Temperature	-40	110	°C	

INPUT SPECIFICATIONS:

PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
Operation Input Voltage (V _i)	36	48	60	V	
Maximum Input Current (I _{i,max}):			10	A	V _i = 0Vdc to 60Vdc I _o = I _{o,max}
Inrush Transient				A ² t	
Input Reflected-Ripple Current: Peak to Peak		5	1	mAp-p	5Hz~20MHz, 12uH Source Impedance
Input Ripple Rejection		60		dB	@ 120Hz

OUTPUT SPECIFICATIONS:

PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
Output Voltage Set Point ($V_{o,set}$)	25.55	26.00	26.45	V	$T_c=25^\circ\text{C}$, $V_i=48\text{V}$,
Line Regulation		0.01	0.1	%	$I_o=I_{o,max}$
Load Regulation		0.05	0.2	%	$V_i=36\text{V to }75\text{V}$
Temperature Drift		50	300	mV	$I_o=0.5$ to $I_{o,max}$
Output Ripple and Noise Voltage: Peak to Peak		100	80	mV _{p-p}	With Output External Capacitors 220uF/35V 100 mohm 3EA. Bandwidth 5Hz to 30MHz
Output Current(I_o):	0.15		8.5	A	At $I_o < 0.5\text{A}$, The Modules May Exceed Output Ripple Specifications
Output Current limit	9.0	9.8	11.5	A	$V_o=90\%$ of $V_{o,set}$
Output Short Circuit Current			170	% $I_{o,max}$	$V_o=250\text{mV}$
Switching Frequency		370		kHz	
Efficiency	85			%	$T_c=25^\circ\text{C}$, $I_o=I_{o,max}$
	75			%	$T_c=25^\circ\text{C}$, $I_o=1.9\text{A}$
Dynamic Response: Peak Deviation Settling Time Rise and Fall Time				mV μs μs	10%-100%-10% Load, 1A/ μs , 863Hz

CONTROL SPECIFICATIONS:

PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
Logic On/Off:					
Logic Low: Ion/off			1	mA	$V_{on/off}=0\text{V}$
Von/off			1.2	V	$I_{on/off}<1\text{mA}$
Logic High: Ion/off			50	μA	$V_{on/off}=15\text{V}$
Von/of			15	V	$I_{on/off}=0.0\ \mu\text{A}$
Turn-On Time		25	50	ms	$I_o=80\%$ of $I_{o,max}$, V_o with +/- 1% $V_{o,set}$, $-10^\circ\text{C to }+80^\circ\text{C}$
Output Remote Sense Range			1.0	V	
Output Voltage Trim Range	60		105	% $V_{o,set}$	
Over Voltage Protection	27.5		31.2	V	Auto recovery
Over Temperature Protection	100	105	110	$^\circ\text{C}$	Auto recovery

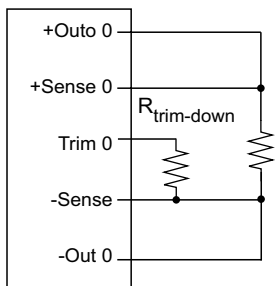
ISOLATION SPECIFICATIONS:

PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
Input to Output		1500		Vdc	
Input to Case		1500		Vdc	
Output to Case		500		Vdc	
Input to Output Capacity		2000		pF	
Isolation Resistance	10			Mohm	

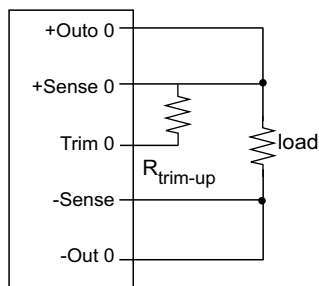
GENERAL SPECIFICATIONS:

PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
MTBF		1.3		Mhrs	Tc=40°C, I _o =80% of I _{o,max}
Weight		118		g	
Size		2.39x2.28x0.52		in ³	

TRIM CIRCUIT



Trim-down



Trim-up

$$R_{\text{trim-down}} = ((100/\Delta\%) - 2) \text{ kohms}$$

$$R_{\text{trim-up}} = \left(\frac{V_o(100 + \Delta\%)}{1.225 \Delta\%} - \frac{100 + 2 \Delta\%}{\Delta\%} \right) \text{ kohms}$$

Δ% = Desired Output Voltage Change

V_o = Output Voltage (26V)

R_{trim-up} = External Resistor Value to Increase V_o

R_{trim-down} = External Resistor Value to Decrease V_o

OUTLINE DRAWING

