

PML12030A007V

C261-01-01D

ABSOLUTE MAXIMUM RATINGS

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device.

ITEMS	Symbol	Min	Max	Unit	Notes & Conditions
Continuous Input Voltage	Vin	-0.3	14	Vdc	
Operating Case Temperature	Tc	-40	115	°C	See Derating Curve
Operating Ambient Temperature	Ta	-40	85	°C	
Storage Temperature	Tstg	-55	125	°C	

ELECTRICAL SPECIFICATIONS

Unless otherwise indicated, specifications apply over all Input Voltage, Resistive Load, and Temperature conditions.

ITEMS	Symbol	Min	Typ	Max	Unit	Notes & Conditions
Operating Input Voltage	Vin	8	12	14	V	
Maximum Input Current	Iin,max	---	---	8.6	A	Vin=Vin,min, Vo=Vo,set, Io=Io,max
Output Voltage Set-point	Vo,set	-1.5	---	+1.5	% Vo,set	Vin=Vin,nom, Io=Io,max, Ta=25°C, TRIM resistor tolerance = +/-0.5% or less
Output Voltage Tolerance	Vo,set	-3	---	+3	% Vo,set	Over all operating input voltage, resistive load, and temperature conditions to end of life, TRIM resistor tolerance = +/-0.5% or less
Line Regulation		---	---	10	mV	Vin=Vin,min to Vin,max
Load Regulation		---	---	10	mV	Io=Io,min to Io,max
Output Voltage Adjustment Range		0.7	---	2	V	
Remote Sense Range		---	---	0.5	V	
Output Ripple and Noise Voltage		---	---	50	mVp-p	Co=100µFx3+0.1µF, Refer to C261-01-02_
External Load Capacitance	Co,max	47	300	1000	µF	
Output Current	Io	0	---	30	A	See Derating Curve
Output Current Limit Threshold	Io,lim	105	---	---	% Io,max	Vo=0.9xVo,set, Ta=25°C
Efficiency	Vo=0.7V	η	---	83	---	%
	Vo=1.2V	η	---	88	---	%
	Vo=2V	η	---	91	---	%
Switching Frequency	fsw	---	210	---	kHz	Fixed
Turn-On Input Voltage		---	7.2	---	V	
Turn-Off Input Voltage		---	4.9	---	V	
On/Off Control	Remote On	Von/off	---	---	0.8	V
	Remote Off	Von/off	4	---	---	V
Turn-On Delay Time	Tdelay	---	5	---	ms	From application of input voltage until Vo=0.1xVo,set. Vin=Vin,nom, Vo=Vo,set, Io=Io,max, Ta=25°C
	Tdelay	---	5	---	ms	From ON/OFF enabled until Vo=0.1xVo,set. Vin=Vin,nom, Vo=Vo,set, Io=Io,max, Ta=25°C
Output Voltage Rise Time	Trise	---	1.5	---	ms	From Vo=0.1xVo,set until Vo=0.9xVo,set. Io=Io,max, Ta=25°C
Output Voltage Overshoot		---	---	3	% Vo,set	Co=100µFx3+0.1µF
Over Temperature Protection	Tc	---	140	---	°C	
Parallel Operation		Possible				Refer to Instruction Manual for Parallel operation.
PGOOD	Over Voltage Threshold	---	112.5	---	% Vo,set	
	Under Voltage Threshold	---	87.5	---	% Vo,set	
	Internal Pull up Voltage	Vpg	5	---	V	
Weight		---	6.4	---	g	
Safety		Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1:20/12/2020)				

