



**THE DATASHEET OF
MP3394SGS-Z**





mEZ Product Options:

1. Ready-to-Use products
 2. Do-It-Yourself.
- Manufacture assistance is provided

FEATURES

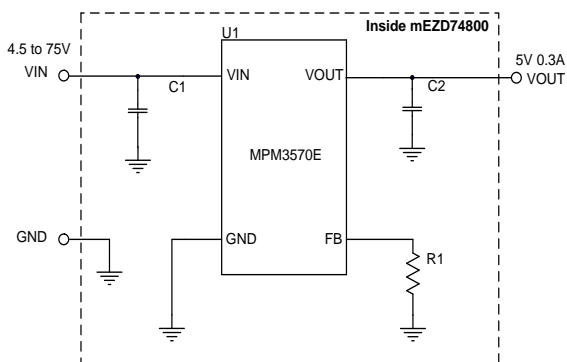
- 4.5V to 75V Wide Operating Input
- 0.3A Load Current
- Hiccup Short-Circuit Protection
- Over-/Under-Voltage Protection
- Over-Current Protection
- Over-Temperature Protection
- Open Design Files and BOM
- Meets EN55022 Class B Emissions

ORDERING INFORMATION

Part Number	Input Voltage (V)	Output Voltage (V)	Output Current (A)
MEZD74800A-A	6 - 75	3.3	0.3
MEZD74800A-B	6 - 75	5	0.3

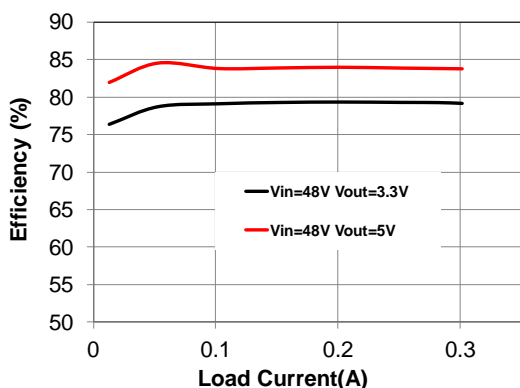
ELECTRICAL CHARACTERISTICS

Input Voltage Range	V_{IN_MIN} higher than V_{OUT} by 1V	4.5 to 75V
Output Voltage Set Accuracy		±1.7% (Typ.)
Output Voltage Ripple	$V_{IN} = 48V$, $V_{OUT} = 3.3V$, Full Load	44mV
Line Regulation	V_{IN} from MIN to MAX, $V_{OUT} = 3.3V$	±0.5% (Typ.)
Load Regulation	I_{OUT} from MIN to MAX, $V_{OUT} = 3.3V$	±1% (Typ.)
Switching Frequency	$V_{OUT} = 3.3V$	140kHz
	$V_{OUT} = 5V$	165kHz
Short-Circuit Protection	Short Output to Ground	Hiccup Mode
Operating Temperature Range		-40 to 85°C
Over-Temperature Protection	OTP	175°C
Rise Time	V_{OUT} from 0% to 90%	1.54ms (Typ.)
Calculated MTBF	MIL-HDBK-217F	4185x10 ³ hrs



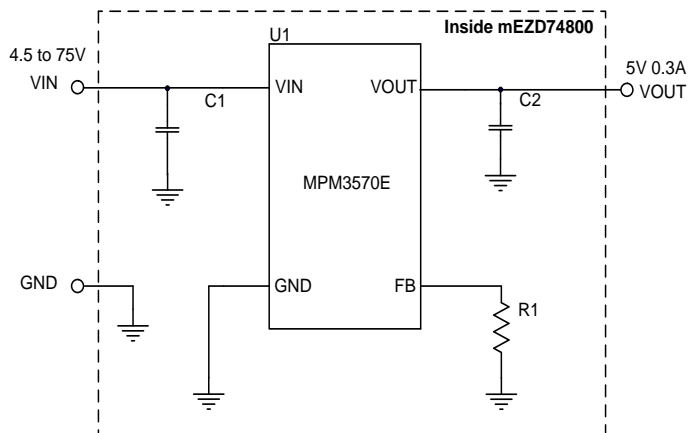
Block Diagram

Efficiency vs. Load Current
 $V_{IN} = 48V$, $V_{OUT} = 3.3V$ and $5V$



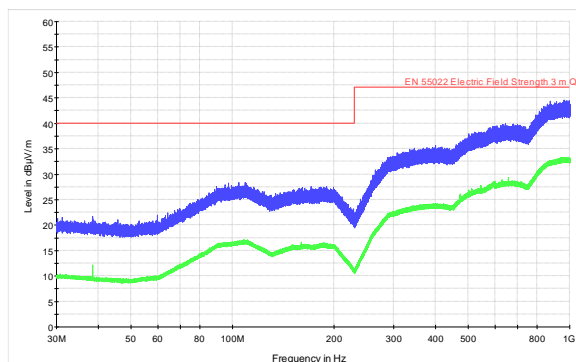
NOTE: All electrical characteristics are tested under 25°C ambient temperature, $V_{IN} = 48V$ unless otherwise noted.

DO-IT-YOURSELF SCHEMATIC



RADIATED EMISSIONS

(EN55022 Class B)
24V_{IN}, 5V_{OUT} @ 0.3A

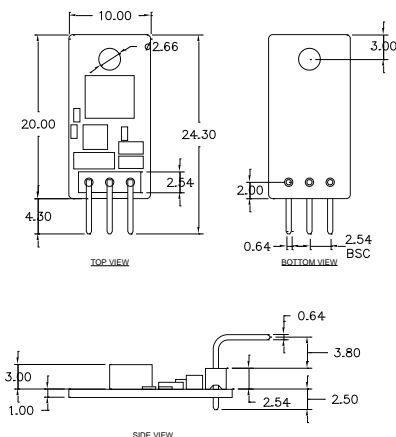


BILL OF MATERIALS

Item	Qty	RefDes	Value	Description	Package	Manufacturer	Manufacturer P/N
1	1	C1	4.7μF	Ceramic Cap., 100V, X7S	1210	muRata	GRM32DC72A475K
2	1	C2	22μF	Ceramic Cap., 10V, X7T	0805	muRata	GRM21BD71A226ME44L
3	1	R1	698kΩ*	Film Resistor, 0.5%	0402	Yageo	RC0402DR-07698KL
4	1	U1	MPM3570E	Synchronous Step-Down Module	LGA-10	MPS	MPM3570EGLD
5	1	P1	3-Pin	3-Pin Male Connector, Right Angle	Bulk	TE-Connectivity	571-3-644457-3

*R1 = 698kΩ is for 5V output only, R1 = NS in 3V3 output version.

PRODUCT PACKAGE AND DIMENSIONS



Pin	Designation	Function
1	VIN	Input Voltage
2	GND	Power Ground
3	VOUT	Output Voltage



NOTE:

Contact factory for different sizes of the boards (Quantity >2k).

For more information, Gerber files, and PCB layout, please contact mEZsupport@monolithicpower.com

Looking for pricing, stock, or lifecycle information?

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