

# BME MINI-SWITCH-MODE® CAPACITORS



This new series of miniature switchmode power supply filter capacitors uses BME (Base Metal Electrode) construction to achieve 300-400% capacitance increases and component size reductions compared to their PME (Precious Metal Electrode) counterparts per the comparison examples below.

## BME Size / Capacitance Comparison

Technology	Chips	Volts	Max. Cap.
PME	1x 1825	50V	1.2 $\mu$ F
<b>BME</b>	<b>1x 1812</b>	<b>50V</b>	<b>4.7<math>\mu</math>F</b>
PME	2x 2225	100V	4.4 $\mu$ F
<b>BME</b>	<b>2x 2220</b>	<b>100V</b>	<b>10<math>\mu</math>F</b>

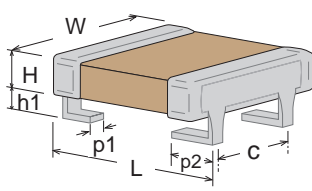
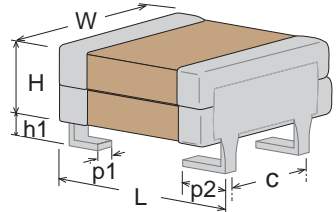
## FEATURES

- High Capacitance, Small Size
- Low ESR/ESL
- Leadframe reduces thermal & mechanical stress due to board flexure and TCE mismatch
- Green / ROHS Compliant

## APPLICATIONS

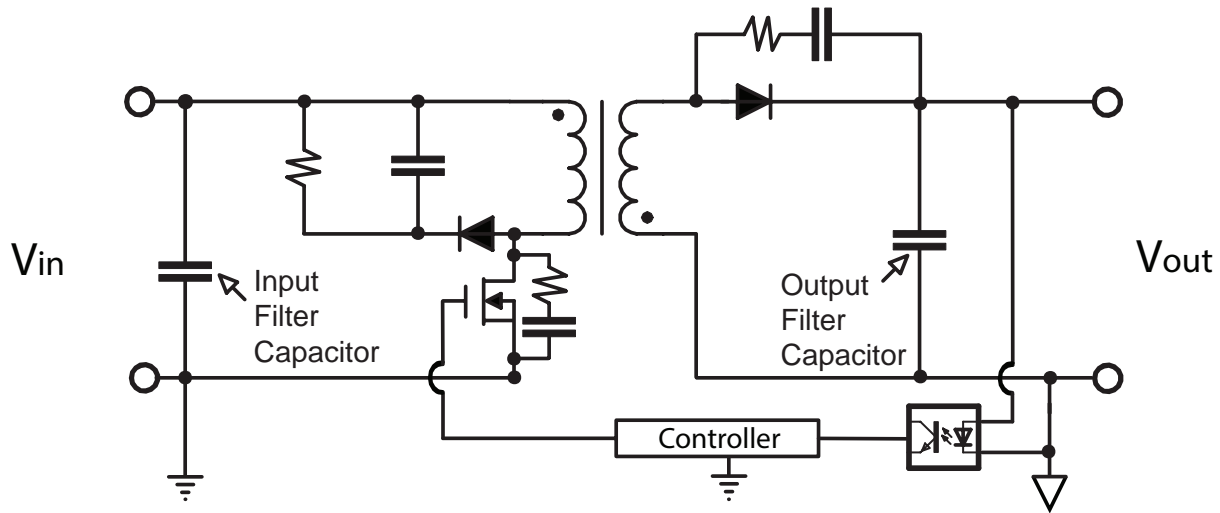
- DC-DC Converters
- Power Supply Input & Output Filters
- High Capacitance Applications Where Increased Reliability is Required

## CAPACITANCE / VOLTAGE

CAPACITANCE RATING	DC VOLTAGE RATING	SIZE P0A 1812 SINGLE STACK		SIZE P07 2220 SINGLE STACK		SIZE P2A 1812 DOUBLE STACK		SIZE P27 2220 DOUBLE STACK		
		IN.	MM	IN.	MM	IN.	MM	IN.	MM	
2.2 $\mu$ F	100V	101P0AW225MJ4U+RC								
4.7 $\mu$ F	50V	500P0AW475MJ4U+RC								
4.7 $\mu$ F	100V			101P07W475MJ4U+RC		101P2AW475MJ4U+RC				
10 $\mu$ F	50V			500P07W106MJ4U+RC		500P2AW106MJ4U+RC				
10 $\mu$ F	100V							101P27W106MJ4U+RC		
22 $\mu$ F	50V							500P27W226MJ4U+RC		
Dimensions Applicable to specific sizes:	L MAX:	0.217	5.5	0.256	6.5	0.217	5.5	0.256	6.5	
	W MAX:	0.157	4.0	0.217	5.5	0.157	4.0	0.217	5.5	
	H MAX:	0.118	3.0	0.118	3.0	0.236	6.0	0.236	6.0	
Dimensions Applicable to all sizes:										
	IN.	MM								
H1 TYP.	.059	1.50								
C TYP.	.100	2.54								
P1 TYP.	.020	0.50								
P2 $\pm$ 0.02	.065	1.65								

## CASE SIZE / PART NUMBER

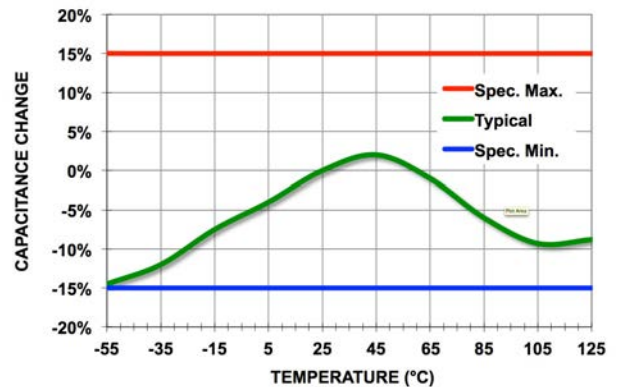
## TYPICAL APPLICATION: DC-DC CONVERTER INPUT & OUTPUT FILTERING



### ELECTRICAL CHARACTERISTICS

OPERATING RANGE:	-55 to +125°C
TEMPERATURE COEFFICIENT:	X7R, ±15%
DISSIPATION FACTOR:	0.020 (2.0%) max.
AGING RATE:	<2.5% per decade
INSULATION RESISTANCE:	25°C IR >100GΩ or 1000 ΩF whichever is less
WITHSTANDING VOLTAGE:	2.5 X WVDC for 50 VDC 2.0 X WVDC for 100 VDC
TEST CONDITIONS:	1kHz ±50Hz; 1.0±0.2 VRMS, 25°C

BME MINI SWITCHMODE TEMPERATURE COEFFICIENT



### HOW TO ORDER - BME MINI SWITCH-MODE®

Part number written: 500P07W106MJ4U+RC

500	P07	W	106	M	J	4	U	+RC
VOLTAGE	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKING	ROHS CODE
500 = 50 V 101 = 100 V	See Chart	W = X7R	1st two digits are significant; third digit denotes number of zeros. 225 = 2.2 μF 106 = 10 μF	M = ±20%	J = "J" Leads (formed in)	4 = Unmarked	U = Embossed Tape 13" Reel per EIA RS481	+RC = RoHS Compliant

