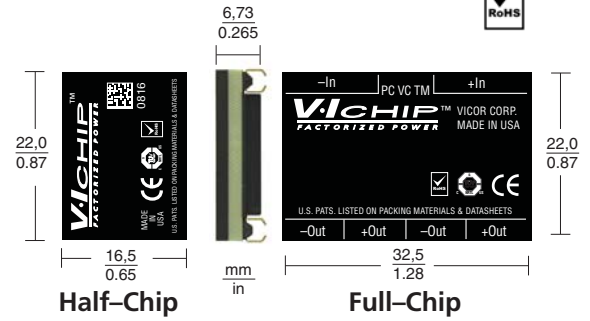


# V·I Chip™ PRM™ Regulator and VTM™ Current Multiplier



- Sine Amplitude Converter (VTM)
- ZVS buck-boost regulator (PRM)
- Regulation 0.2% (Remote Sense)
- Small footprint: 1.1 in<sup>2</sup> or 0.55 in<sup>2</sup>
- High efficiency up to 97%
- Low profile 0.265"
- Power Density > 1000 W/in<sup>3</sup>



## Product Description

The PRM is a very efficient non-isolated regulator capable of both boosting and bucking a wide range input voltage and provides a regulated, adjustable output voltage or "Factorized Bus". PRMs can be used stand-alone as non-isolated voltage regulators or combined with VTMs for a complete isolated, DC-DC solution with higher efficiency and power density. The VTM provides point-of-load, fixed ratio voltage transformation with extremely fast transient response and isolation to 2,250 Vdc.

PRM Model Number*	Input Voltage		Output Voltage Range (V)	Output Power Max. (W)	Output Current Max. (A)	Temp. Grade	Package
	Nom. (V)	Range (V)					
PO24F048T12AL	24	18 - 36	26 - 55	120	2.5	T	Full
PO36F048T12AL	36	18 - 60	26 - 55	120	2.5	T	Full
PO45F048T17AL	45	38 - 55	26 - 55	170	3.5	T	Full
PO45F048T32AL	45	38 - 55	26 - 55	320	6.67	T	Full
PO48F048T12AL	48	36 - 75	26 - 55	120	2.5	T	Full
PO48F048T24AL	48	36 - 75	26 - 55	240	5.0	T	Full

VTM Model Number*	Input Voltage Range (V)		Output Voltage Range (V)	Output Current Max. (A)	Temp. Grade	Package
	Range (V)	Range (V)				
V048F015T100	26 - 55	0.81 - 1.72	100	T	Full	
VIV0102THJ	26 - 55	0.81 - 1.72	50	T	Half	
V048F020T080	26 - 55	1.08 - 2.29	80	T	Full	
VIV0103THJ	26 - 55	1.08 - 2.29	40	T	Half	
V048F030T070	26 - 55	1.63 - 3.44	70	T	Full	
V048F040T050	26 - 55	2.17 - 4.58	50	T	Full	
VIV0104THJ	26 - 55	2.17 - 4.58	25	T	Half	
V048F060T040	26 - 55	3.25 - 6.88	40	T	Full	
VIV0105THJ	26 - 48	3.25 - 6.88	20	T	Half	
V048F080T030	26 - 55	4.33 - 9.17	30	T	Full	
V048F096T025	26 - 55	6.40 - 11.00	25	T	Full	
V048F120T025	26 - 55	6.50 - 13.75	25	T	Full	
VIV0101THJ	26 - 55	6.50 - 13.75	10	T	Half	
V048F160T015	26 - 55	8.67 - 18.33	15	T	Full	
V048F240T012	26 - 55	14.00 - 26.50	12	T	Full	
V048F320T009	26 - 55	17.33 - 36.67	9	T	Full	
V048F480T006	26 - 55	26.00 - 55.00	6	T	Full	

\*Full size models also available in through-hole and M grade.

## Typical Applications

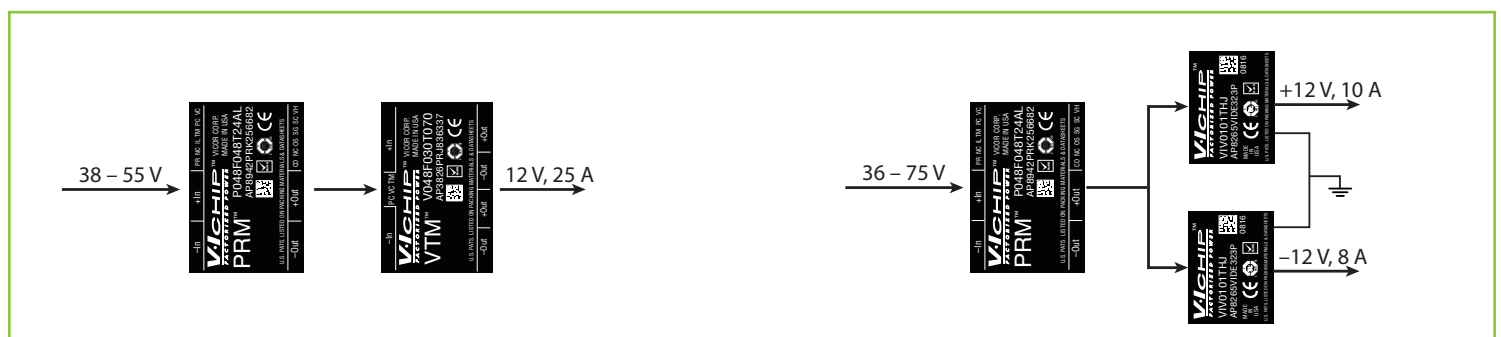
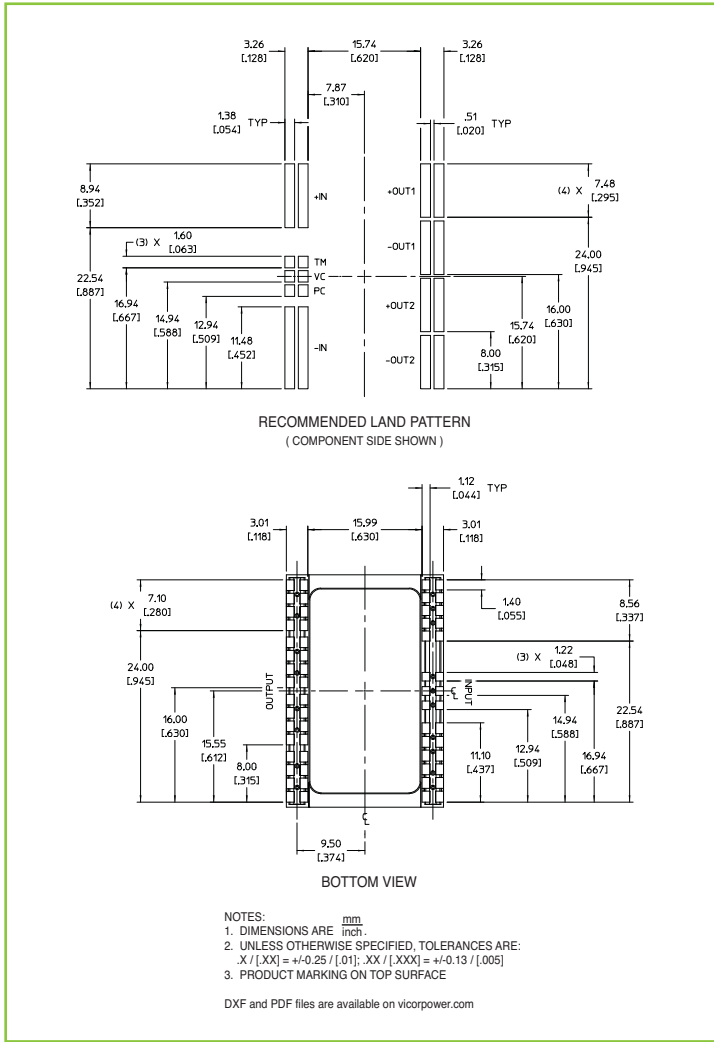
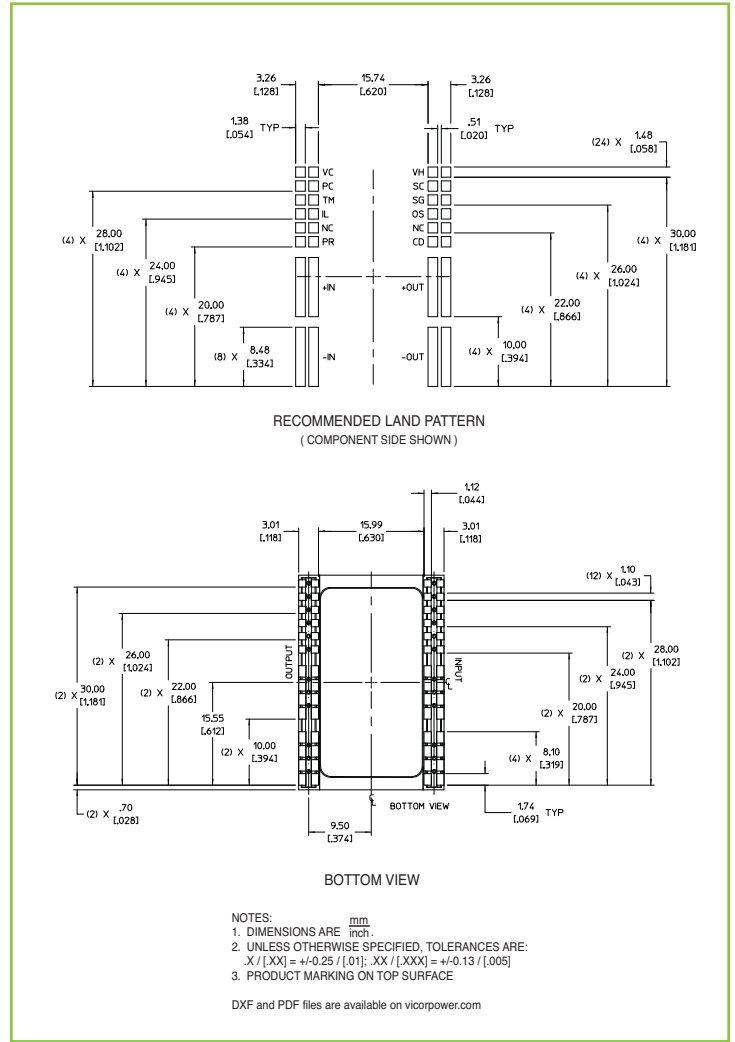


Figure 1 — Typical applications

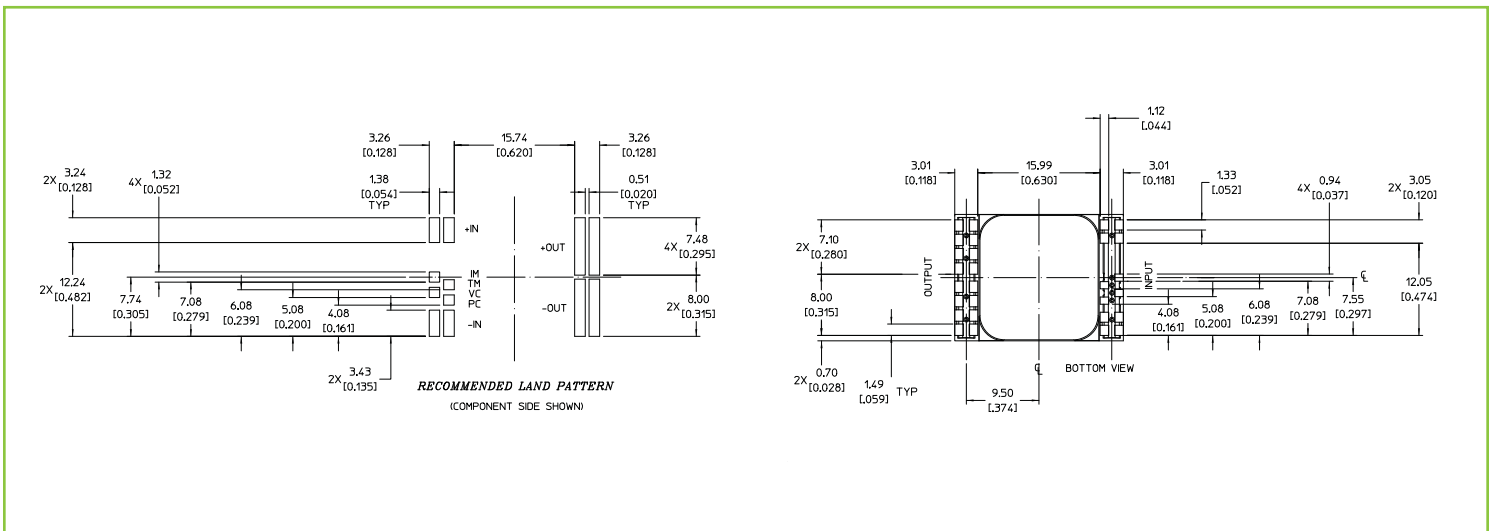
## VTM Mechanical Outline Drawing



## PRM Mechanical Outline Drawing



## 1/2 VTM Mechanical Outline Drawing



The products described on this document are protected by the following U.S. Patents Numbers: PRMs: 5,945,130; 6,403,009; 6,710,257; 6,788,033; 6,940,013; 6,969,909; 7,038,917; 7,154,250; 7,166,898; 7,187,263; 7,202,646; 7,361,844; 7,368,957; RE40,072; D496,906; D506,438; D509,472; and for use under 6,975,098 and 6,984,965 VIMs: 5,945,130; 6,403,009; 6,710,257; 6,911,848; 6,930,893; 6,934,166; 6,940,013; 6,969,909; 7,038,917; 7,145,186; 7,166,898; 7,187,263; 7,202,646; 7,361,844; D496,906; D505,114; D506,438; D509,472; and for use under 6,975,098 and 6,984,965