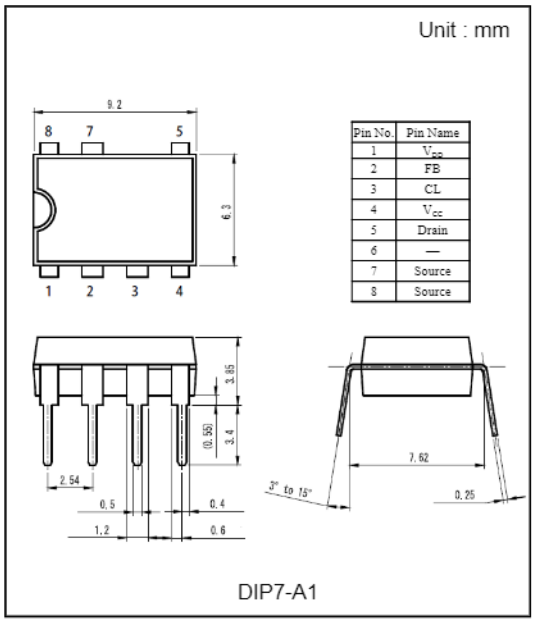
Featuring built-in frequency jitter necessary for EMI, while also conserving power during standby!

High-Performance IPD for Battery Chargers MIP2Kx Series

■ Overview

MIP2Kx series is a high-performance IPD designed for 15W battery chargers and featuring built-in frequency jitter function at PWM control. It features built-in protection circuits necessary for compact power source charger circuitry. This allows a significant reduction in externally connected parts. It provides PWM control when a normal load is applied and intermittent control with low load. This results in greater efficiency for very low to maximum loads, while also conserving power during standby.



DIP7-A1

■ Feature

- Built-in jitter function
- Built-in charge protection circuit
  Built-in overheating, load shorting and overvoltage protection circuits

■ Applications

Chargers (for DSC, etc.), AC adapter

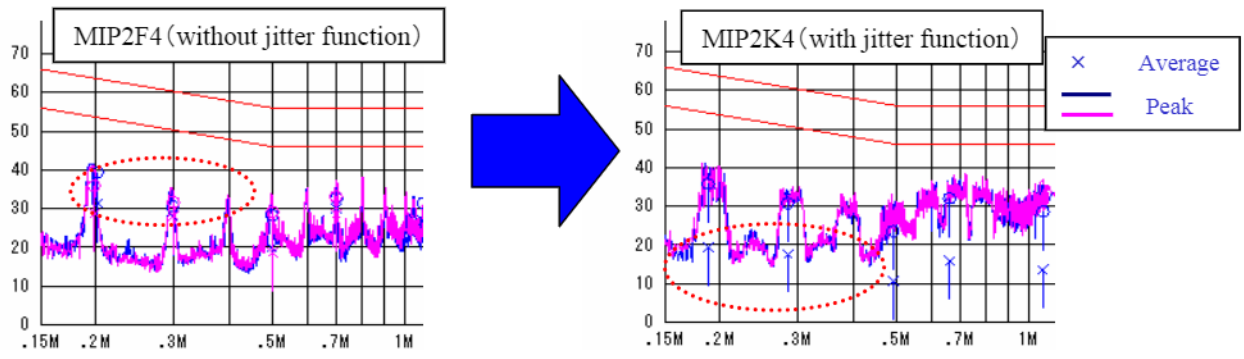
■ Lineup

Type No.	Output *1	Characteristic					
		VDSS	ILIMIT	R(DS)ON	fosc	Δf	fM
MIP2K2 *2	Up to 5W	700V	0.35A	16.5Ω	100kHz	5.5kHz	260Hz
MIP2K3	Up to 8W		0.50A	10Ω			
MIP2K4	Up to 10W		0.70A	7Ω			
MIP2K5 *2	Up to 13W		1.0A	5Ω			

*1 The electric power mentioned above depends on the transformer specification and ambient conditions. The information should be used only as a guide. When using it within a case, output electric power may be decided by heat of IPD.

*2 All characteristic values are only for reference (still under development).

■ Comparison data of conduction noise



Decentralized pulse by jitter function → Lower the avarage

Products and specifications are subject to change without notice.
Please ask for the latest Product Standards to guarantee the satisfaction of your product requirements.

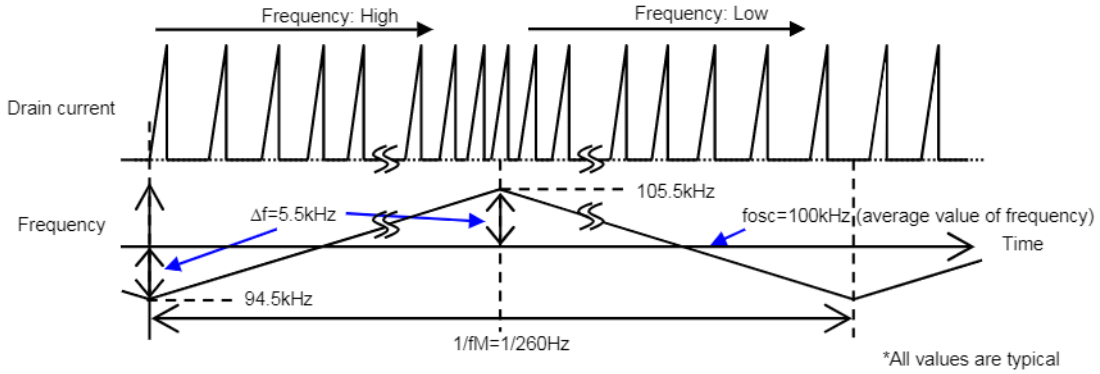
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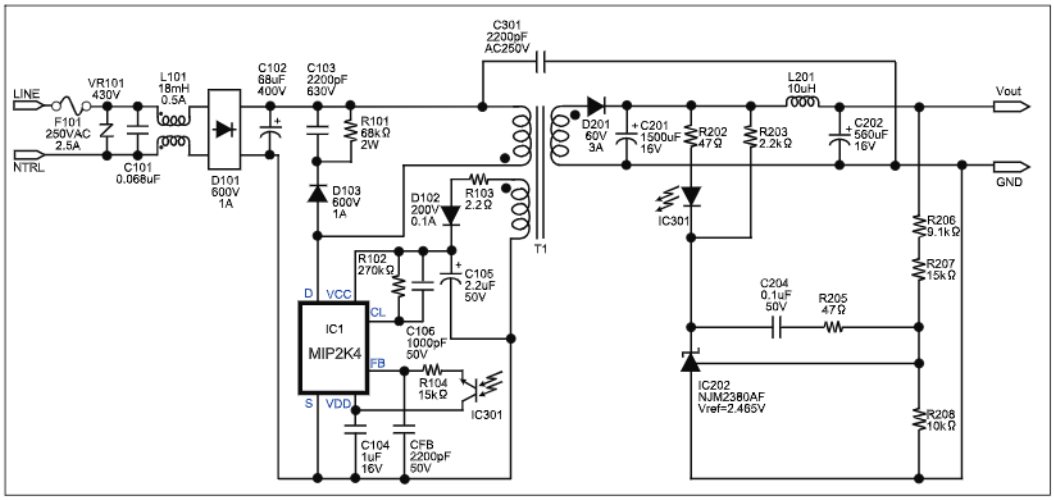
■ Frequency jitter function

By frequency jitter function, frequency jitter variation(Δf) changes periodically, by frequency of frequency jitter modulation factor (fM) as shown below.

fosc=100kHz typ, Δf=5.5kHz typ, fM=260Hz typ

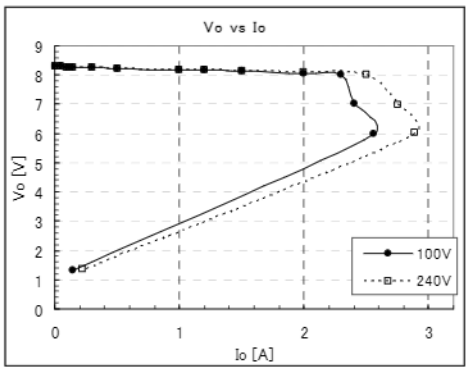


■ Adapter circuit sample (MIP2K4)

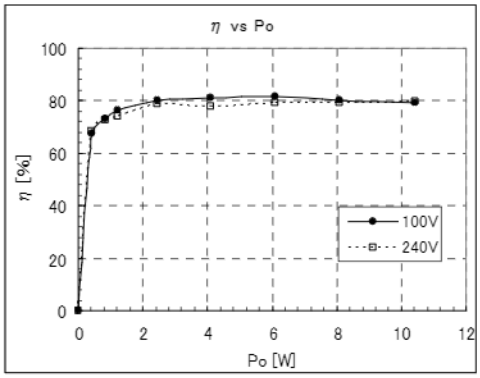


■ Electric characteristics (MIP2K4：Worldwide input, 8.3V/1.5A output)

VI characteristics of adapter circuit



Power efficiency



■ Precautions on the Sales of IPDs

1) The sale and/or the export of IPD products to any customer or customers located in any country other than Japan is expressly prohibited by the Agreement made and executed by and between Power Integrations, Inc. and Matsushita Electric Industrial Co., Ltd.
2) IPD products purchased from Matsushita Electric Industrial Co., Ltd., or its authorized agents, hereinafter referred to as Matsushita Electric Industrial Co., Ltd., shall be used only for production purposes by those parties who have duly purchased IPD products. Those who have purchased IPD products shall not use such IPD products in unmodified form for re-sale, loan, or sample shipment for evaluation purposes to any other parties.
3) If a party who has duly purchased IPD products subcontracts its production to any other parties, including its subsidiaries or any other third parties inside and/or out of Japan, and the IPD products are consigned to such subcontracting parties thereat, such party is obligated to monitor and control the quantity of IPD products to prevent any of the aforementioned re-sale, loan or sample shipments from taking place.
4) In the event that any actual or threatened breach or violation of any of the above mentioned 1, 2, or 3, has occurred or is about to occur, Matsushita Electric Industrial Co., Ltd. will hold all shipments of IPD products and may request the party alleged to be responsible for such occurrence for necessary.

Parts No.	Able to supply	Disable to supply	Application
MIP2K□□	•Domestic Japanese companies • Japanese companies in Asia (50% or more owned)	• European and American companies • Local Asian companies • Other local companies	For power supply