

Product News

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.

■ 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

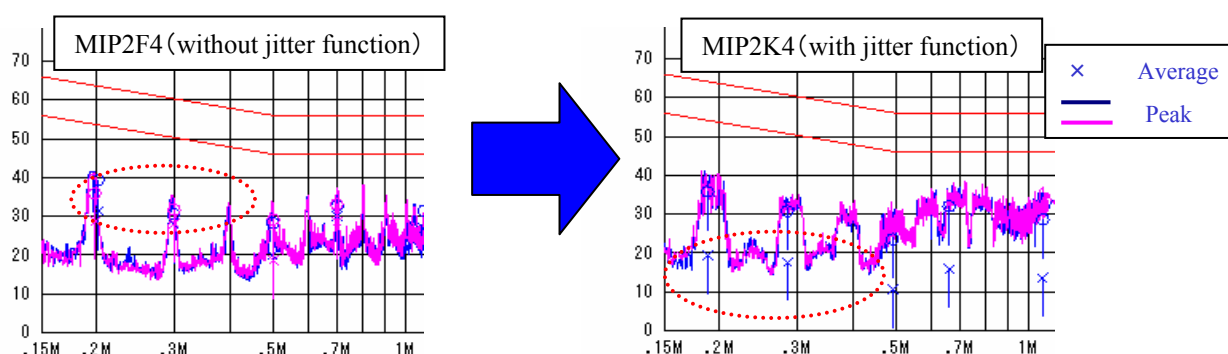
■ Lineup

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

*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 average

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

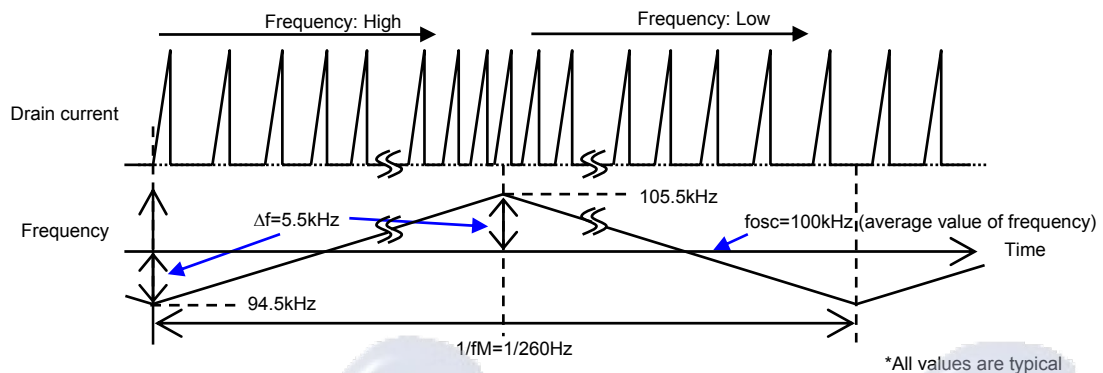
New publication, effective from 1 Oct. 2008

M00852BE

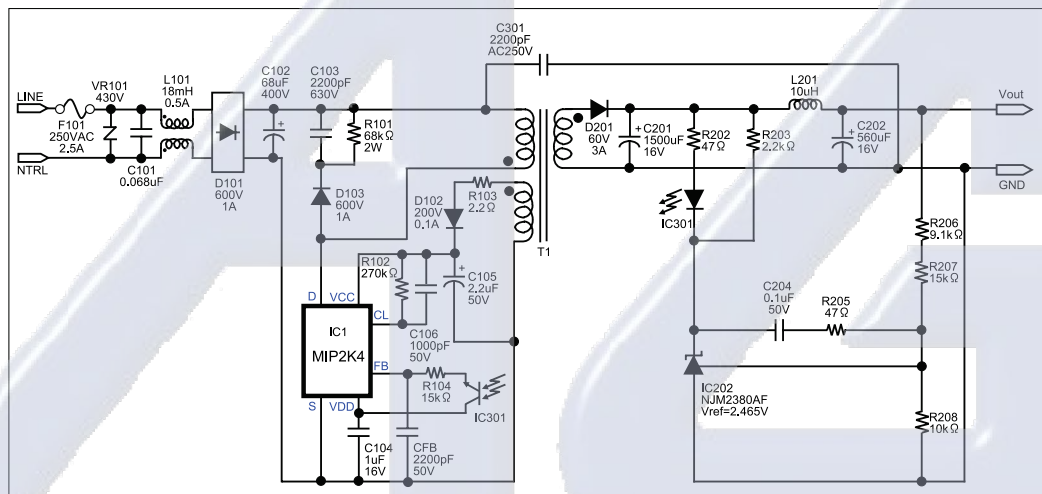
Frequency jitter function

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

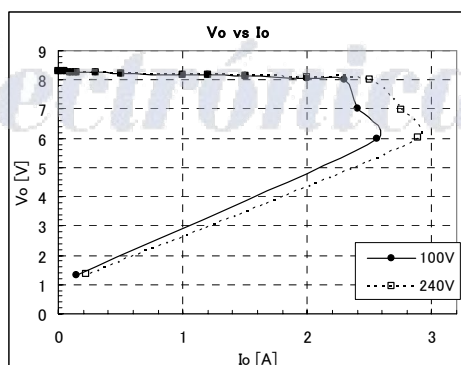


Adapter circuit sample (MIP2K4)

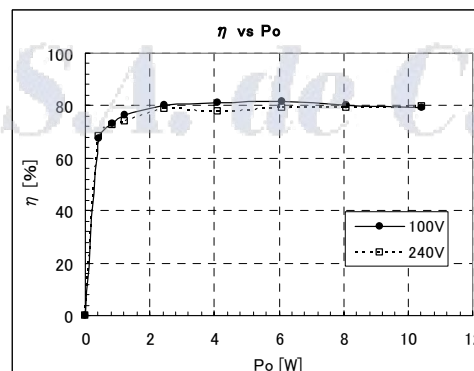


Electric characteristics (MIP2K4: Worldwide input, 8.3V/1.5A output)

VI characteristics of adapter circuit



Power efficiency



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