



THE DATASHEET OF ICE2B765PCKSA1

CoolSET F2 expands its family

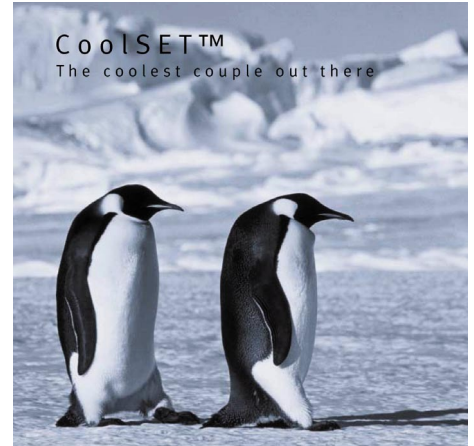
Now also available in TO-220-6 & DIP-7 !

Description:

Second generation of integrated Power ICs for switched mode power supplies (SMPS).

BY INTEGRATING a pulse width modulator control IC and CoolMOS™ power MOSFET into one package, CoolSET™ marks a new dimension in design agility and miniaturization. At the same time, the CoolSET family provides the highest output power with the lowest losses available in industry. CoolSET additionally integrates a very low power standby concept which reduces the power dissipation in standby mode.

NOW CoolSET is **also available with 67kHz** operating frequency - the ,B' version. The CoolSET family is offered in **3 packages** broadening the **power range up to 180W** at wide range voltage input. Simultaneously the **new packages** are with **improved creepage distance**.



Applications:

Switched Mode Power Supplies (SMPS) for:

- **Adapters**

- Notebooks
- Printers
- LCD-Monitors



- **Battery Chargers for Portables**

- Mobile Phones
- Digital Still Cameras
- Personal Digital Assistants / Organizers
- Battery Operated Tools



- **Set-Top-Boxes**



- **Digital Video Disc Players / Recorders**

As well as Standby / Auxillary Power Supplies for:

- **PC**

- **White goods**

- **USB**



Features:

- Integrated Power IC
- 650V and 800V avalanche rugged CoolMOS™ technology
- Enhanced integrated protection functions
- Lowest standby power dissipation
- Modulated gate drive
- External current sense
- Packages DIP-8, DIP-7, TO-220-6

Benefits:

- Easier SMPS Design
- Reduced heat generation
- Reduced system cost, size and weight
- Less external components
- Comply with standby power requirements
- Reduced EMI
- Flexibility in current limitation
- Optimized fit for each application
- Increased creepage distance

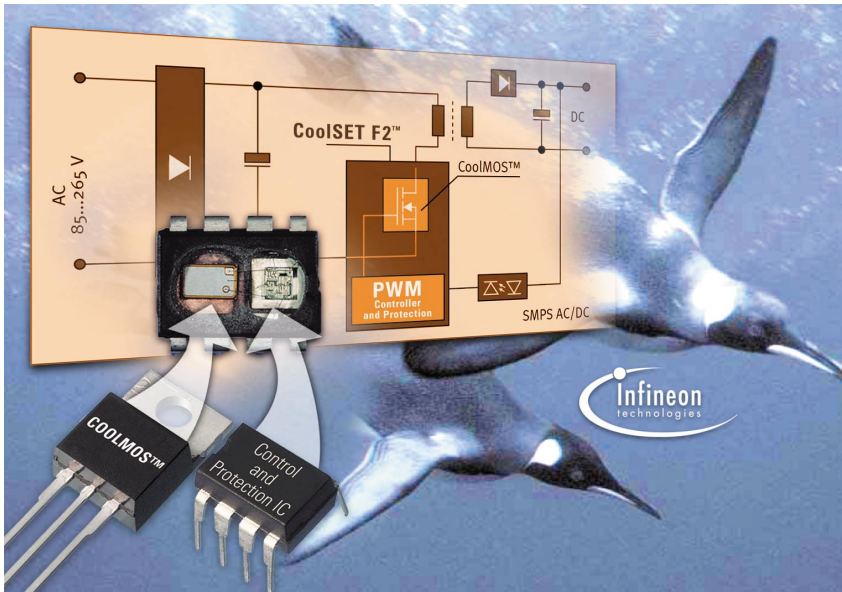
CoolSET F2

ICE2xxxxx series

www.infineon.com/coolset



Never stop thinking



**Typical Application Example:
AC/DC Flyback Converter**

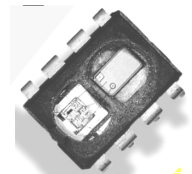
V _{DS} [V]	f _{OPER} [kHz]	Type	R _{DS(on)} [Ω]	P _{OUT(max.)} ¹⁾ [W]	Package
650	100	ICE2A0565	6.0	15	P-DIP-8-6
		ICE2A0565Z	6.0	13	P-DIP-7-1
		ICE2A165	3.0	21	P-DIP-8-6
		ICE2A265	1.0	34	P-DIP-8-6
		ICE2A365	0.5	47	P-DIP-8-6
650	67	ICE2B165	3.0	21	P-DIP-8-6
		ICE2B265	1.0	34	P-DIP-8-6
		ICE2B365	0.5	47	P-DIP-8-6
800	100	ICE2A180	3.0	21	P-DIP-8-6
		ICE2A280	0.8	37	P-DIP-8-6
		ICE2A180Z	3.0	19	P-DIP-7-1
		ICE2A280Z	0.8	33	P-DIP-7-1
V _{DS} [V]	f _{OPER} [kHz]	Type	R _{DS(on)} [Ω]	P _{OUT(max.)} ²⁾ [W]	Package
650	100	ICE2A765P	0.5	180	P-TO220-6 ISO
650	67	ICE2B765P	0.5	180	P-TO220-6 ISO

¹⁾ R_{th}=56k/W (~6cm² copper area), T_a=50°C, T_j=125°C, V_{in}=85V...270V

²⁾ R_{th}=2,7k/W, T_a=50°C, T_j=125°C, V_{in}=85V...270V

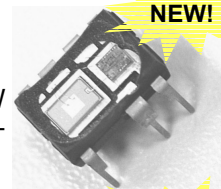
P-DIP-8

- P_{out} ~10...45W
- standard DIP8 package



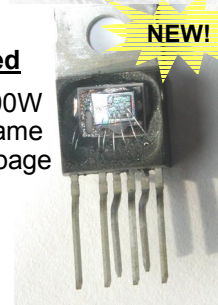
P-DIP-7

- P_{out} ~10...35W
- increased cree-page distance



TO-220-6 Isolated

- P_{out} ~50W...200W
- isolated lead frame
- increased creepage distance



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