



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# CoolSET F2 expands its family

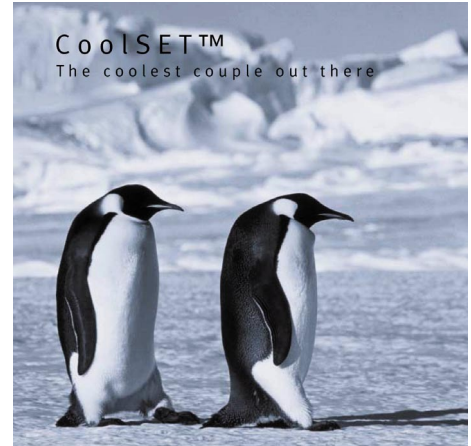
## Now also available in TO-220-6 & DIP-7 !

**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

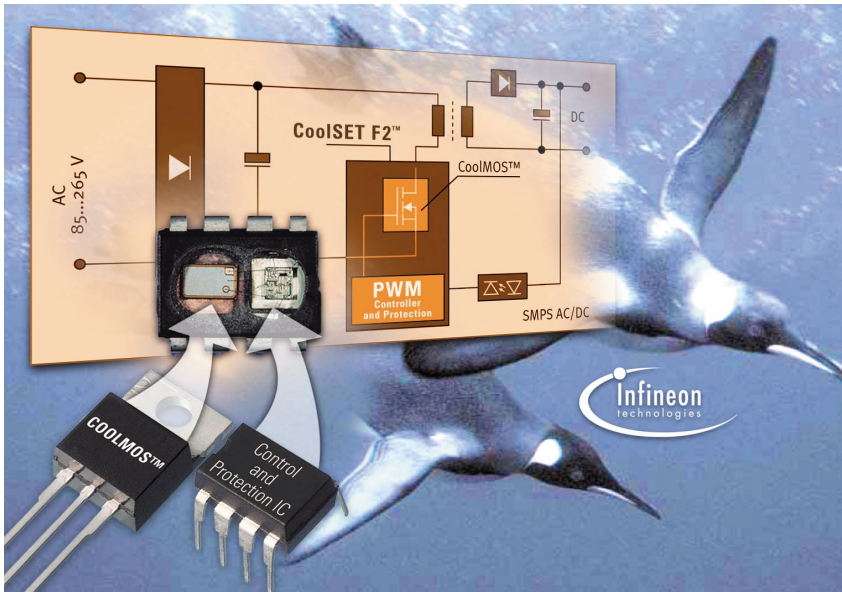
CoolSET F2

ICE2xxxxx series

[www.infineon.com/coolset](http://www.infineon.com/coolset)



Never stop thinking



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

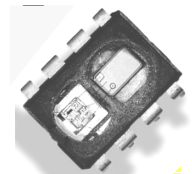
V <sub>DS</sub> [V]	f <sub>OPER</sub> [kHz]	Type	R <sub>DS(on)</sub> [Ω]	P <sub>OUT(max.)</sub> <sup>1)</sup> [W]	Package
650	100	ICE2A0565	6.0	15	P-DIP-8-6
		ICE2A0565Z	6.0	13	P-DIP-7-1
		ICE2A165	3.0	21	P-DIP-8-6
		ICE2A265	1.0	34	P-DIP-8-6
		ICE2A365	0.5	47	P-DIP-8-6
650	67	ICE2B165	3.0	21	P-DIP-8-6
		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 <sub>DS</sub> [V]	f <sub>OPER</sub> [kHz]	Type	R <sub>DS(on)</sub> [Ω]	P <sub>OUT(max.)</sub> <sup>2)</sup> [W]	Package
650	100	ICE2A765P	0.5	180	P-TO220-6 ISO
650	67	ICE2B765P	0.5	180	P-TO220-6 ISO

<sup>1)</sup> R<sub>th</sub>=56k/W (~6cm<sup>2</sup> copper area), T<sub>a</sub>=50°C, T<sub>j</sub>=125°C, V<sub>in</sub>=85V...270V

<sup>2)</sup> R<sub>th</sub>=2,7k/W, T<sub>a</sub>=50°C, T<sub>j</sub>=125°C, V<sub>in</sub>=85V...270V

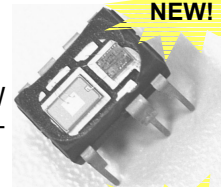
### P-DIP-8

- Pout ~10...45W
- standard DIP8 package



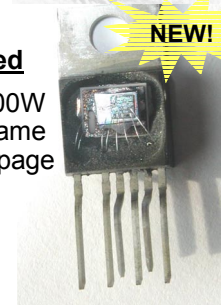
### P-DIP-7

- Pout ~10...35W
- increased cree-page distance



### TO-220-6 Isolated

- Pout ~50W...200W
- isolated lead frame
- increased creepage distance



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