Product / Process Change Notification

N° 2005-161-A

Dear Customer,

Please find attached our INFINEON Technologies PCN:

Change of naming: CoolMOS CS to CoolMOS CP, datasheet specification changes within the respective datasheets

Important information for your attention:

- Please respond to this PCN by indicating your decision on the approval form, sign it and return to your sales partner before **5. April 2006**.
- Infineon aligns with the widely-recognized JEDEC STANDARD “JESD46-B“, which stipulates: “Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.“

Your prompt reply will help Infineon Technologies to assure a smooth and well executed transition. If Infineon does not hear from your side by the due date, we will assume your full acceptance to this proposed change and its implementation.

Your attention and response to this matter is greatly appreciated.

Product / Process Change Notification

N° 2005-161-A

SUBJECT OF CHANGE:

Change of naming: CoolMOS CS to CoolMOS CP as well as specification changes within the respective datasheets

PRODUCTS AFFECTED:

IPW60R045CS (TO-247)
IPW60R099CS (TO-247)
IPP60R099CS (TO-220)
IPB60R099CS (TO-263-3-2)
IPC60R045CS
IPC60R099CS

REASON OF CHANGE:

Infineon is further going on with application specific series for CoolMOS technologies such as CP. To streamline this activity and to maintain a reasonable size of different product families, IFX decided to rename the parts CoolMOS CS to CoolMOS CP. This will not affect quality and performance. Specification changes within the datasheets have been done to ensure an easier handling for design-ins.

DESCRIPTION OF CHANGE:

(1) IPW60R045CS see page 3-4
(2) IPW60R099CS see page 5-6
(3) IPP60R099CS see page 7-8
(4) IPB60R099CS see page 9
(5) IPC60R045CS see page 10
(6) IPC60R099CS see page 10

PRODUCT IDENTIFICATION:

Naming
Ordering Code
It should be noted that this update of the data sheet is not connected to any change of production.

TIME SCHEDULE:

Final qualification report:	not applicable, this update of the data sheet is not connected to any change of the qualification report
Samples available:	not applicable, please note that this update of the data sheet is not connected to any change of production
Implementation date for change:	May 2006

ASSESSMENT:

- No change in material and processing
- No change in electrical and optical parameters
- No impact on performance, quality or reliability
- No impact on product functionality and product dimensions

DOCUMENTATION:

New product data sheets: 4_cip05161.zip

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DESCRIPTION OF CHANGE(1)

IPW60R045CS (1-2)

	OLD	NEW
Naming	IPW60R045CS	IPW60R045CP
Datasheet changes:		
Ordering Code (p. 1 datasheet)	Q67045A5061	SP000067149
Parameter Max Ratings (p. 2 datasheet)	Without footnote for Diode pulse current	With footnote Diode pulse current [2)] [2)] Pulse width t_p limited by T_{jmax} The footnote can be found on p.4 datasheet
Parameter Max Ratings (p. 2 datasheet)	Reverse dv/dt not specified	Reverse dv/dt specified by 15V/ns with a supplement in footnote [4)] stating [4)] I_{SD} <=I_D, di/dt <=100A/µs, V_{DC} link =400V, V_{peak} <$V_{(BR)DSS}$, T_j <T_{jmax}, identical low side and high side switch
Parameter Max Ratings (p. 2 datasheet)	Diode pulse current $I_{S,pulse}$ 180A	Diode pulse current $I_{S,pulse}$ 230A
Change Min and Max values "Gate threshold voltage" (p.2 datasheet)	min value 2.1V max value 3.9V	min value 2.5V max value 3.5 V
Change Zero Gate Voltage drain current (I_{DSS}) (p. 2 datasheet)	I_{DSS} max value 25µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value tbd. (V_{DS}=600V, V_{GS}=0V, T_j =150°C)	I_{DSS} max value 10µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value 50µA (V_{DS}=600V, V_{GS}=0V, T_j =150°C)
Change explanation of headline Graph 3 (p. 4 datasheet) **"Max transient thermal impedance"**	I_D = f(V_{DS}); T_j =25°C	$Z_{(thJC)}$ = f(t_p)

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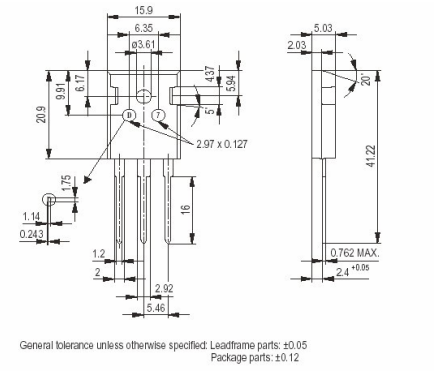
DESCRIPTION OF CHANGE(1)

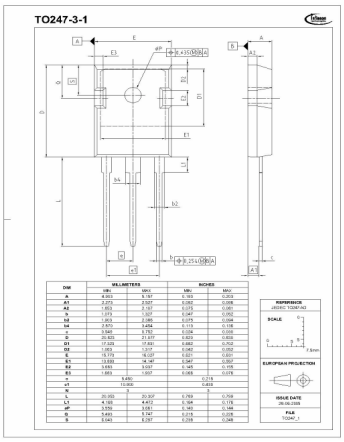
IPW60R045CS (2-2)

OLD

NEW

Actualization of package drawing
(p. 9 datasheet)





for details see datasheet attached

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DESCRIPTION OF CHANGE(2)

IPW60R099CS (1-2)

	OLD	NEW
Naming	IPW60R099CS	IPW60R099CP
Datasheet changes:		
Ordering Code (p. 1 datasheet)	Q67045A5060	SP000067147
Parameter Max Ratings (p. 2 datasheet)	Without footnote for Diode pulse current	With footnote Diode pulse current [2)] [2)] Pulse width t_p limited by T_{jmax} The footnote can be found on p.4 datasheet
Parameter Max Ratings (p. 2 datasheet)	Reverse dv/dt not specified	Reverse dv/dt specified by 15V/ns with a supplement in footnote [4)] stating [4)] I_{SD} <=I_D, di/dt <=100A/µs, V_{DC} link =400V, V_{peak} <$V_{(BR)DSS}$, T_j <T_{jmax}, identical low side and high side switch
Change Min and Max values "Gate threshold voltage" (p.2 datasheet)	min value 2.1V max value 3.9V	min value 2.5V max value 3.5 V
Change Zero Gate Voltage drain current (I_{DSS}) (p. 2 datasheet)	I_{DSS} max value 10µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value tbd. (V_{DS}=600V, V_{GS}=0V, T_j =150°C)	I_{DSS} max value 5µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value 50µA (V_{DS}=600V, V_{GS}=0V, T_j =150°C)
Change explanation of headline Graph 3 (p. 4 datasheet) **"Max transient thermal impedance"**	I_D = f(V_{DS}); T_j =25°C	$Z_{(thJC)}$ = f(t_p)

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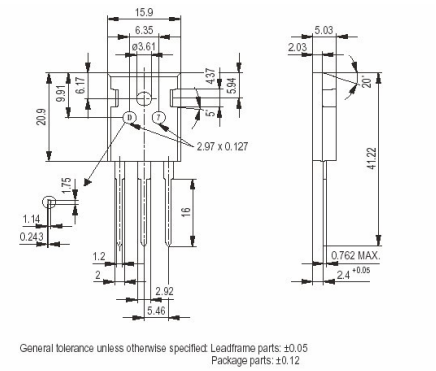
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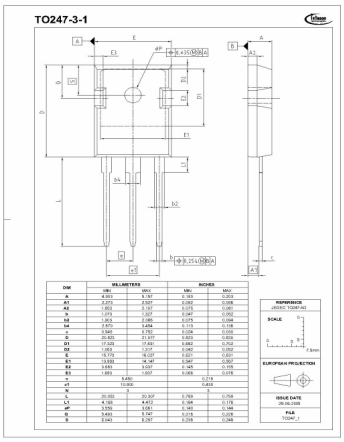
IPW60R099CS (2-2)

OLD

NEW

Actualization of package drawing
(p. 9 datasheet)





for details see datasheet attached

N° 2005-161-A

DESCRIPTION OF CHANGE(3)

IPP60R099CS (1-2)

	OLD	NEW
Naming	IPP60R099CS	IPP60R099CP
Datasheet changes:		
Ordering Code (p. 1 datasheet)	Q67045A5018	SP000057021
Parameter Max Ratings (p. 2 datasheet)	Without footnote for Diode pulse current	With footnote Diode pulse current [2)] [2)] Pulse width t_p limited by T_{jmax} The footnote can be found on p.4 datasheet
Parameter Max Ratings (p. 2 datasheet)	Reverse dv/dt not specified	Reverse dv/dt specified by 15V/ns with a supplement in footnote [4)] stating [4)] I_{SD} <=I_D, di/dt <=100A/µs, V_{DC} link =400V, V_{peak} <$V_{(BR)DSS}$, T_j <T_{jmax}, identical low side and high side switch
Change Min and Max values "Gate threshold voltage" (p. 2 datasheet)	min value 2.1V max value 3.9V	min value 2.5V max value 3.5 V
Change Zero Gate Voltage drain current (I_{DSS}) (p. 2 datasheet)	I_{DSS} max value 10µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value tbd. (V_{DS}=600V, V_{GS}=0V, T_j =150°C)	I_{DSS} max value 5µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value 50µA (V_{DS}=600V, V_{GS}=0V, T_j =150°C)
Change explanation of headline Graph 3 (p. 4 datasheet) **"Max transient thermal impedance"**	I_D = f(V_{DS}); T_j =25°C	$Z_{(thJC)}$ = f(t_p)

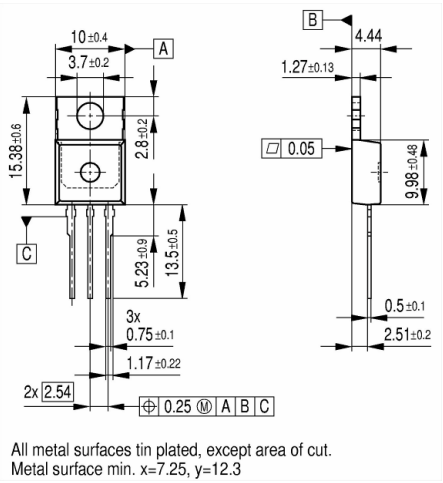
N° 2005-161-A

DESCRIPTION OF CHANGE(3)

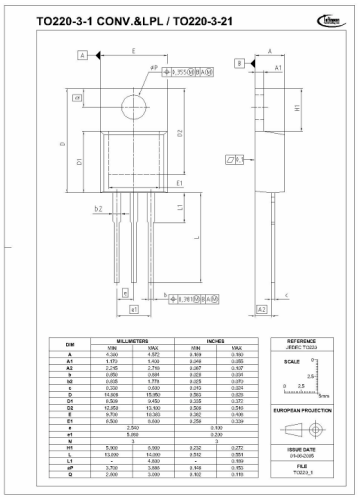
IPP60R099CS (2-2)

Actualization of package drawing
(p. 9 datasheet)

OLD



NEW



for details see datasheet attached

N° 2005-161-A

DESCRIPTION OF CHANGE(4)

IPB60R099CS (1-1)

	OLD	NEW
Naming	IPB60R099CS	IPB60R099CP
Datasheet changes:		
Parameter Max Ratings (p. 2 datasheet)	Without footnote for Diode pulse current	With footnote Diode pulse current [2)] [2)] Pulse width t_p limited by T_{jmax} The footnote can be found on p.4 datasheet
Parameter Max Ratings (p. 2 datasheet)	Reverse dv/dt not specified	Reverse dv/dt specified by 15V/ns with a supplement in footnote [4)] stating [4)] I_{SD} <=I_D, di/dt <=100A/µs, V_{DC} link =400V, V_{peak} <$V_{(BR)DSS}$, T_j <T_{jmax}, identical low side and high side switch
Change Zero Gate Voltage drain current (I_{DSS}) (p. 2 datasheet)	I_{DSS} max value 10µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value tbd. (V_{DS}=600V, V_{GS}=0V, T_j =150°C)	I_{DSS} max value 5µA (V_{DS}=600V, V_{GS}=0V, T_j =25°C) I_{DSS} typ. value 50µA (V_{DS}=600V, V_{GS}=0V, T_j =150°C)

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DESCRIPTION OF CHANGE(5)

IPC60R045CS

	OLD	NEW
Naming	IPC60R045CS	IPC60R045CP
Ordering Code	Q67045A5108	SP000077216

DESCRIPTION OF CHANGE(6)

IPC60R099CS

	OLD	NEW
Naming	IPC60R099CS	IPC60R099CP
Ordering Code	Q67045A5152	SP000078900