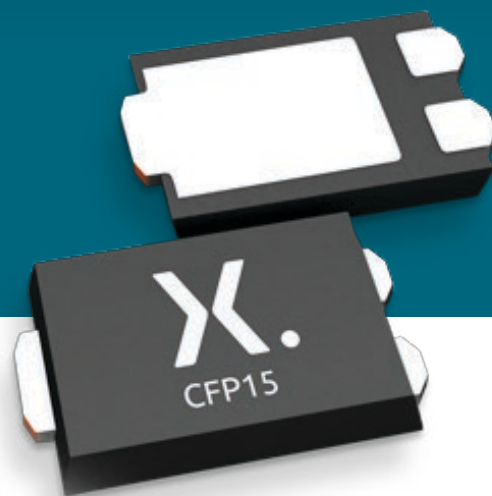


# World's thinnest medium power schottky rectifiers in CFP15 FlatPower package



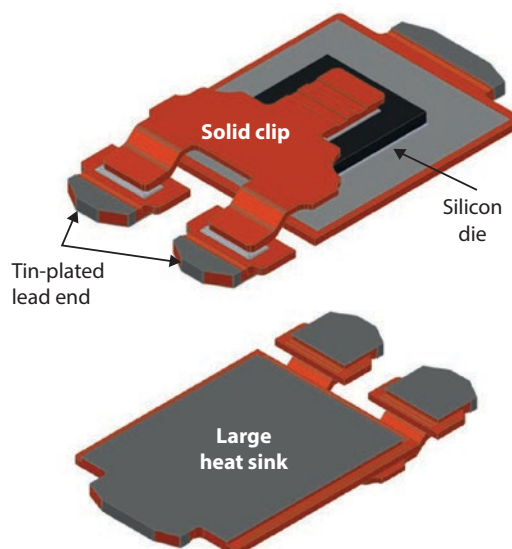
Delivering ultra-low forward voltages and high current density in the thinnest package available (0.78 mm), these rectifiers are ideal for use in smartphone and tablet chargers.

Nexperia's new medium power schottky barrier rectifiers with 5 – 15 A, housed in the new, low-profile CFP15 FlatPower package offer applied miniaturization of power.

Cutaway view of FlatPower package CFP15 (SOT1289)

## Key features

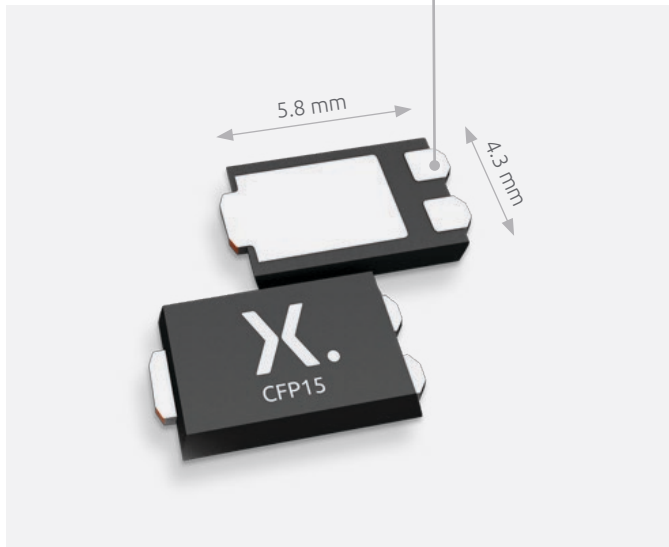
- › Average forward current:  $I_{F_{AV}} \leq 5 - 15 \text{ A}$
- › Reverse voltage:  $V_R \leq 45 - 60 \text{ V}$
- › Extremely low forward voltage
- › High-power capability due to clip-bond technology and heat sink
- › Small, thin SMD power plastic package, with height of 0.78 mm (typ)
- › Junction temperature up to 175 °C
- › Automatic optical inspection of solder joint due to tin-plated lead ends
- › AEC-Q101 qualified
- › Benchmark flat design of only 0.78 mm height, compared to 1.1 mm of competitor products
- › Footprint compatible to competitor types



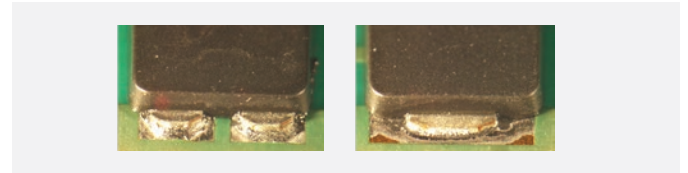
## Key applications

- › Low-voltage rectification
- › High-efficiency DC-to-DC conversion
- › Switch-mode power supply (SMPS)

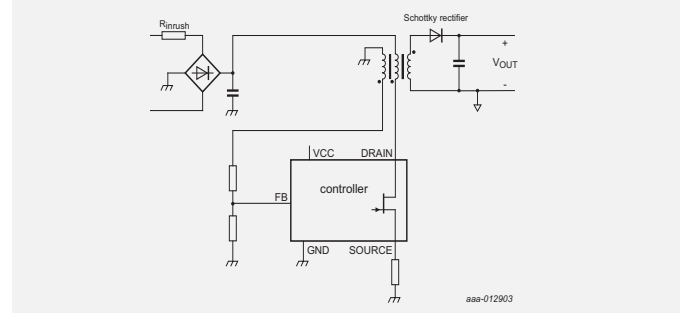
## CFP15 package details




## Tin plated lead ends



## Application example flyback converter



## Medium power low $V_F$ schottky rectifiers blue $\geq 5$ A

Product Type	$I_F$ max (A)	$V_R$ max (V)	$V_F$ max (mV) @ $I_F$ max	$I_R$ max (mA) @ $V_R$ max	Optimization	$P_{tot}$ (mW) @ 1 cm <sup>2</sup>	Package
PMEG030V030EPD	3	30	450	0.15	Low $I_R$	2150	 CFP15
PMEG040V030EPD		40	490	0.12	Low $V_F$		
PMEG045T030EPD		45	495	0.036	Low $V_F$ / Low $I_R$		
PMEG050V030EPD		50	530	0.1	Low $V_F$		
PMEG060V030EPD		60	530	0.2	Low $V_F$		
PMEG030V050EPD	5	30	500	0.15	Low $V_F$		
PMEG040V050EPD		40	520	0.12	Low $V_F$		
PMEG045V050EPD		45	490	0.3	Low $V_F$		
PMEG045T050EPD			545	0.036	Low $V_F$ / Low $I_R$		
PMEG060V050EPD		60	560	0.4	Low $V_F$		
PMEG100V060ELPD	6	100	840	0.00045	low leakage		
PMEG100V080ELPD	8	100	850	0.0005	low leakage		
PMEG045V100EPD	10	45	490	0.6	Low $V_F$		
PMEG45U10EPD					Low $V_F$		
PMEG45A10EPD			540	0.5	Low $V_F$		
PMEG045T100EPD			565	0.061	Low $V_F$ / Low $I_R$		
PMEG060V100EPD		60	560	0.7	Low $V_F$		
PMEG100V100ELPD		100	850	0.0008	low leakage		
PMEG045V150EPD	15	45	490	1	Low $V_F$		
PMEG045T150EPD				0.03	Low $V_F$		
PMEG45T15EPD			580	0.1	Low $V_F$ / Low $I_R$		
PMEG045T150EIPD			590	76	Low $V_F$ / Low $I_R$		
PMEG050V150EPD		50	500	1	Low $V_F$		
PMEG050T150EPD			550	0.1	Low $I_R$		

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