



## 产品简介

# CoolSiC™肖特基二极管650 V G6

## 无与伦比的能效和性价比

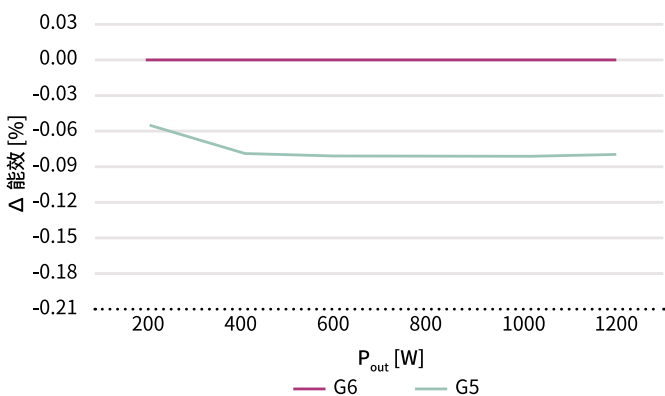
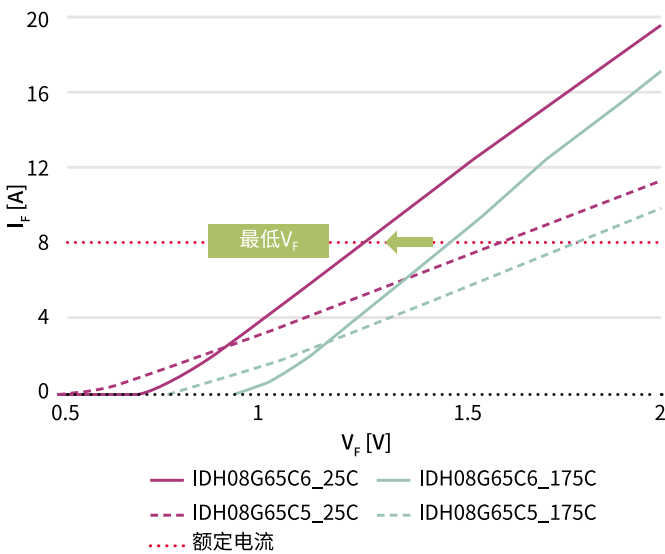
CoolSiC™肖特基二极管650 V G6是英飞凌碳化硅肖特基势垒二极管的领先技术,充分利用碳化硅相对于硅的所有优点。英飞凌专利创新的焊接工艺结合了紧凑型设计,薄晶圆技术和新型肖特基金属系统。因此,该产品系列可在所有负载条件下提高能效,这得益于同类最佳性能系数 ( $Q_c \times V_F$ )。CoolSiC™G6二极管与英飞凌的600 V和650 V CoolMOS™7系列兼容,满足该电压范围中最严格的应用要求。

### 主要特性

- > 最低VF: 1.25 V
- > 一流的性能系数( $Q_c \times V_F$ )
- > 无反向恢复电荷
- > 温度独立切换行为
- > 高dv/dt耐用性
- > 优化的热行为

### 主要优势

- > 在所有负载条件下提高系统能效
- > 提高系统功率密度
- > 降低冷却要求并提高系统可靠性
- > 提供极快速开关
- > 便捷有效地与 CoolMOS™ 7系列搭配
- > 提升性价比



**实验结果**  
PFC 能效对比  
G6和G5 8 A  
CoolSiC™肖特基  
二极管

$V_{in} = 230 V_{AC}$   
 $f_{sw} = 130 kHz$   
 $T_{amb} = 25^\circ C$



# CoolSiC™肖特基二极管650 V G6

## 无与伦比的能效和性价比

G6是在G5达成成就的基础上构建的,保留了G5低 $Q_c$ ,可靠和质优等突出特性。为了G6,英飞凌开发了新的半导体技术,重新设计了二极管。G6拥有新的布局,植入以及单元结构,使用了一种

新颖而专有的肖特基金属系统以降低肖特基势垒并获得创纪录的VF (1.25 V),同时保持逆向损失边际化并实现高能效。由此造就了独特的 $Q_c \times V_f$ 性能系数,比前几代产品低17%。

### 持续提供最佳性价比

CoolSiC™ G6二极管是英飞凌不断提高技术和流程的结果,让碳化硅肖特基二极管的设计和开发更具价格优势,性能一代更比一代强。因此,G6是英飞凌最具有性价比的CoolSiC™肖特基二极管的一代,在同等价格下提供最高能效。此外,您与英飞凌这个行业领导者打交道的时候尽可安心。顾客可以信赖英飞凌

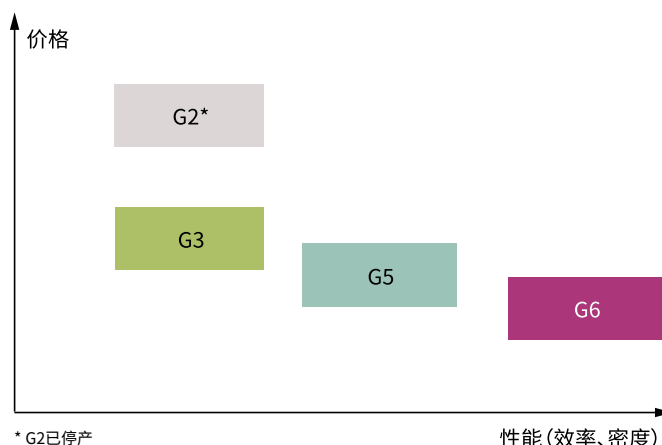
公认的质量和可靠的供应链。他们将受益于“一站式购物”,并能够将系统性能最大化,方法是将CoolSiC™肖特基二极管与600 V C7, 650 V C7, 600 V G7, 650 V G7和600 V P7等CoolMOS™ 7系列的超级结MOSFET结合。

### 产品系列\*

$I_F$ [A]	TO-220 real2pin
4	IDH04G65C6
6	IDH06G65C6
8	IDH08G65C6
10	IDH10G65C6
12	IDH12G65C6
16	IDH16G65C6
20	IDH20G65C6

\* 规划的2018年第一季度起的产品组合扩张

### CoolSiC™的性价比定位



\* G2已停产

Published by  
Infineon Technologies Austria AG  
9500 Villach, Austria

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