

# BRF12N65 (CS12N65F)

# N-Channel MOSFET/N 沟 MOS 晶体管

用途：用于高频开关电源，电子镇流器，UPS 电源。

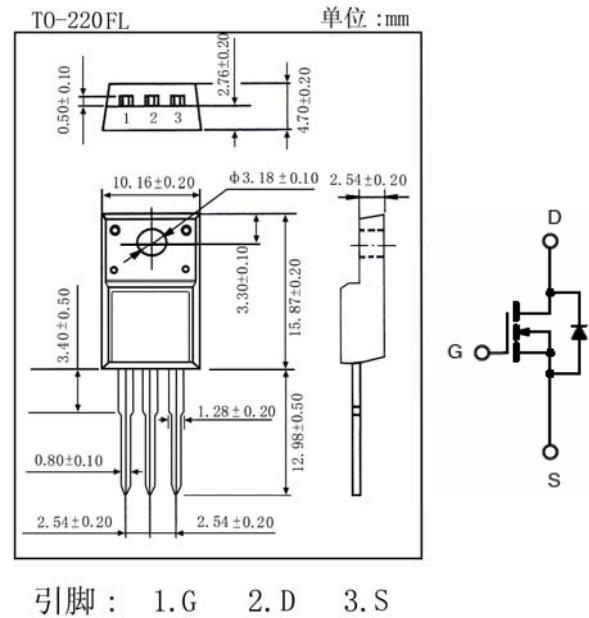
Purpose: High efficiency switch mode power supplies, Electronic lamp ballasts based on half bridge, UPS.

特点：低栅极电荷，低反馈电容，开关速度快。

Features: Low gate charge, Low Crss, Fast switching.

### 极限参数/Absolute maximum ratings (Ta=25°C)

参数符号 Symbol	数值 Rating	单位 Unit
V <sub>DSS</sub>	650	V
I <sub>D</sub> (Tc=25°C)	12	A
I <sub>D</sub> (Tc=100°C)	7.6	A
I <sub>DM</sub>	48	A
V <sub>GSS</sub>	±30	V
E <sub>AS</sub>	880	mJ
E <sub>AR</sub>	25	mJ
I <sub>AR</sub>	12	A
R <sub>θJC</sub>	2.45	°C/W
R <sub>θJA</sub>	62.5	°C/W
P <sub>D</sub>	51	W
T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C



### 电性能参数/Electrical Characteristics (Ta=25°C)

参数符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
BV <sub>DSS</sub>	V <sub>GS</sub> =0V I <sub>D</sub> =250 μA	650			V
I <sub>DSS</sub>	V <sub>DS</sub> =650V V <sub>GS</sub> =0V			1.0	μA
I <sub>GSS</sub>	V <sub>GS</sub> =±30V V <sub>DS</sub> =0V			±100	nA
V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> I <sub>D</sub> =250 μA	3.0		5.0	V
R <sub>DS(on)</sub>	V <sub>GS</sub> =10V I <sub>D</sub> =6A		0.71	0.78	Ω
g <sub>FS</sub>	V <sub>DS</sub> =40V I <sub>D</sub> =6A		13		S
V <sub>SD</sub>	V <sub>GS</sub> =0V I <sub>S</sub> =12A			1.39	V
C <sub>iss</sub>	V <sub>DS</sub> =25V V <sub>GS</sub> =0V f=1.0MHz		1790	2410	pF
C <sub>oss</sub>			175	229	
C <sub>rss</sub>			23	31	
t <sub>d(on)</sub>	V <sub>DD</sub> =300V I <sub>D</sub> =12A R <sub>G</sub> =25 Ω		78	102	ns
t <sub>r</sub>			133	175	
t <sub>d(off)</sub>			233	305	
t <sub>f</sub>			104	160	

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