

用途:用于高效 DC/DC 转换和功率开关。

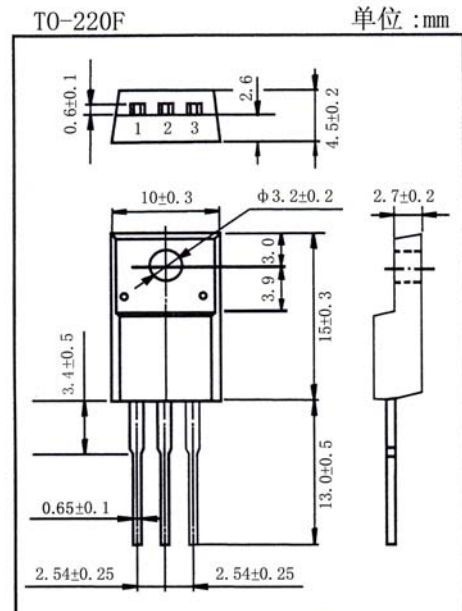
Purpose: These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

特点: 低栅电荷, 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>	500	V
I <sub>D</sub> (T <sub>c</sub> =25°C)	5.0	A
I <sub>D</sub> (T <sub>c</sub> =100°C)	3.0	A
I <sub>DM</sub>	20	A
V <sub>GSS</sub>	±30	V
I <sub>AR</sub>	4.5	A
E <sub>AS</sub>	292	mJ
E <sub>AR</sub>	8.75	mJ
P <sub>D</sub> (T <sub>c</sub> =25°C)	38	W
T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C



引脚: 1.G 2.D 3.S

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	500			V
I <sub>DSS</sub>	V <sub>DS</sub> =500V V <sub>GS</sub> =0V			10	μA
	V <sub>DS</sub> =400V T <sub>c</sub> =125°C			100	μA
I <sub>GSS</sub>	V <sub>GS</sub> =±30V V <sub>DS</sub> =0V			±0.1	μA
V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> I <sub>D</sub> =250 μA	2.0		4.0	V
R <sub>DS(on)</sub>	V <sub>GS</sub> =10V I <sub>D</sub> =2.5A		1.15	1.4	Ω
g <sub>FS</sub>	V <sub>DS</sub> =40V I <sub>D</sub> =2.5A		4.2		S
V <sub>SD</sub>	V <sub>GS</sub> =0V I <sub>S</sub> =5.0A			1.5	V
C <sub>iss</sub>	V <sub>DS</sub> =25V V <sub>GS</sub> =0V f=1.0MHz		680	900	pF
C <sub>oss</sub>			85	110	
C <sub>rss</sub>			15	20	
t <sub>d(on)</sub>	V <sub>DD</sub> =250V I <sub>D</sub> =4.5A R <sub>G</sub> =25Ω		20	50	ns
t <sub>r</sub>			40	90	
t <sub>d(off)</sub>			90	190	
t <sub>f</sub>			45	100	

# IRFS830 (CS830F)

