



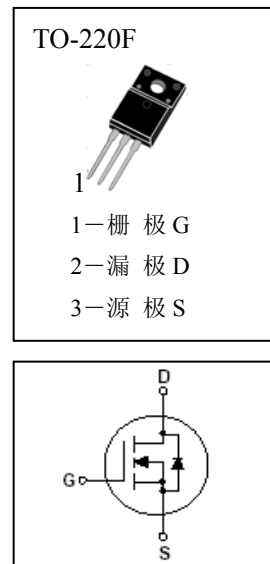
## ■ 主要用途

高速开关应用。

## ■ 极限值 (T<sub>a</sub>=25°C)

T <sub>stg</sub>	—贮存温度·····	-55~150°C
T <sub>j</sub>	—结温·····	150°C
V <sub>DSS</sub>	—漏极—源极电压·····	800V
V <sub>GS</sub>	—栅极—源极电压·····	±30V
I <sub>D</sub>	—漏极电流 (T <sub>c</sub> =25°C) ·····	3.0A
I <sub>DM</sub>	—漏极电流 (脉冲) (注 1) ·····	12A
P <sub>D</sub>	—耗散功率 (T <sub>c</sub> =25°C) ·····	39W

## ■ 外形图及引脚排列



## ■ 电参数 (T<sub>a</sub>=25°C)

参数符号	符号说明	最小值	典型值	最大值	单位	测试条件
BV <sub>DSS</sub>	漏—源极击穿电压	800			V	I <sub>D</sub> =250 μ A, V <sub>GS</sub> =0V
I <sub>DSS</sub>	零栅压漏极电流			10	μ A	V <sub>DS</sub> =800V, V <sub>GS</sub> =0
I <sub>GSS</sub>	栅极泄漏电流			±100	nA	V <sub>GS</sub> =±30V, V <sub>DS</sub> =0V
V <sub>GS(th)</sub>	栅—源极开启电压	2.5		4.5	V	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> =250 μ A
R <sub>DS(on)</sub>	漏—源极导通电阻		4.0	4.8	Ω	V <sub>GS</sub> =10V, I <sub>D</sub> =1.5A
C <sub>iss</sub>	输入电容		700	910	pF	V <sub>DS</sub> =25V, V <sub>GS</sub> =0, f=1MHz
C <sub>oss</sub>	输出电容		70	90	pF	
C <sub>rss</sub>	反向传输电容		7	9	pF	
t <sub>d(on)</sub>	导通延迟时间		20	40	nS	V <sub>DS</sub> =400V, I <sub>D</sub> =3.0A (峰值) R <sub>G</sub> = 25 Ω (注 2)
t <sub>r</sub>	上升时间		55	110	nS	
t <sub>d(off)</sub>	断开延迟时间		30	60	nS	
t <sub>f</sub>	下降时间		40	80	nS	V <sub>DS</sub> =640V V <sub>GS</sub> =10V I <sub>D</sub> =3.0A (注 2)
Q <sub>g</sub>	栅极总电荷		17	22	nC	
Q <sub>gs</sub>	栅极—源极电荷		4.5		nC	
Q <sub>gd</sub>	栅极—漏极电荷		7.5		nC	I <sub>D</sub> =3.0A (注 2)
I <sub>s</sub>	源极—漏极二极管正向电流			3.0	A	
V <sub>SD</sub>	源极—漏极二极管导通电压			1.4	V	I <sub>S</sub> =3.0A, V <sub>GS</sub> =0
R <sub>th(j-c)</sub>	热阻			3.2	°C/W	结到外壳

\*注 1: 漏极电流受最大结温限制。

\*注 2: 脉冲测试, 宽度 ≤300 μ S, 占空比 ≤2%



■ 典型特性曲线

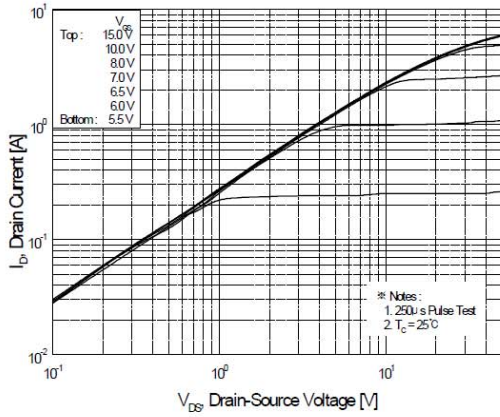


Figure 1. On-Region Characteristics

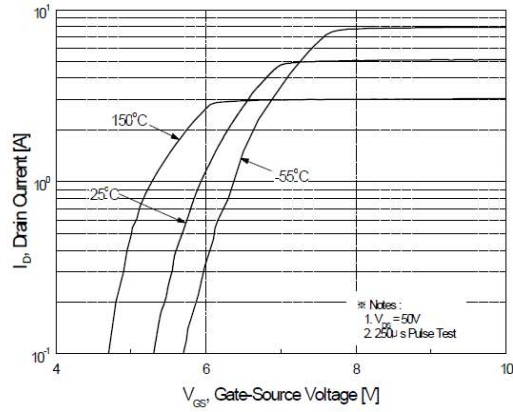


Figure 2. Transfer Characteristics

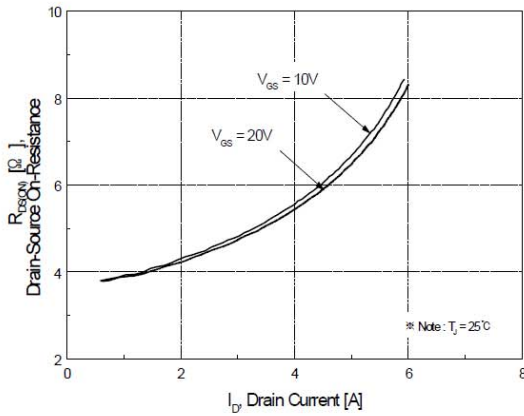


Figure 3. On-Resistance Variation vs Drain Current and Gate Voltage

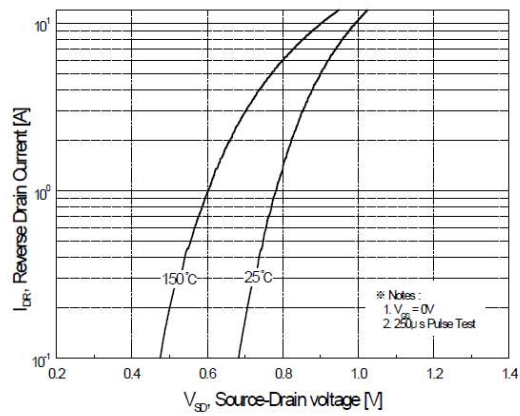


Figure 4. Body Diode Forward Voltage Variation with Source Current and Temperature

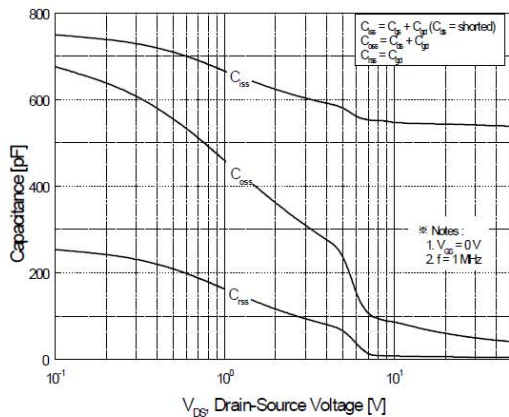


Figure 5. Capacitance Characteristics

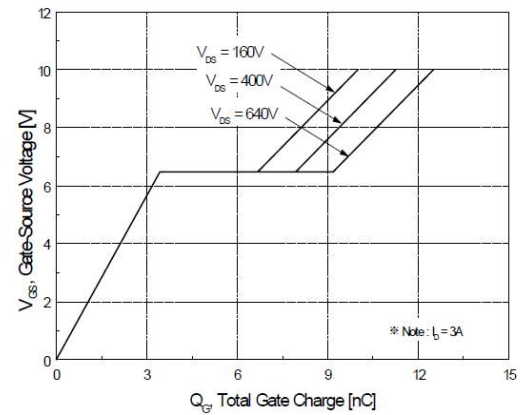


Figure 6. Gate Charge Characteristics



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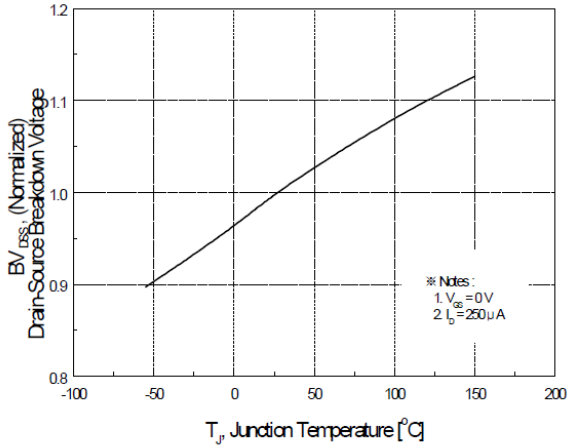


Figure 7. Breakdown Voltage Variation vs Temperature

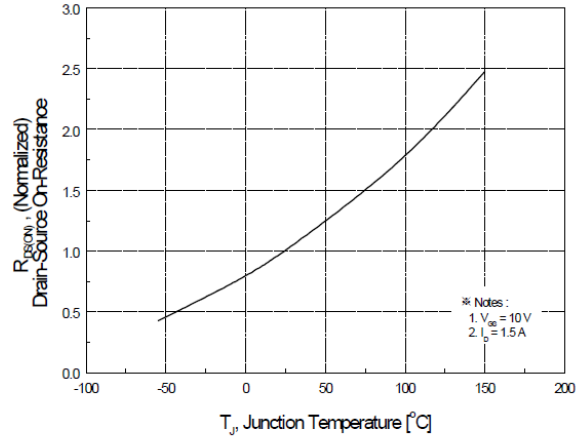


Figure 8. On-Resistance Variation vs Temperature

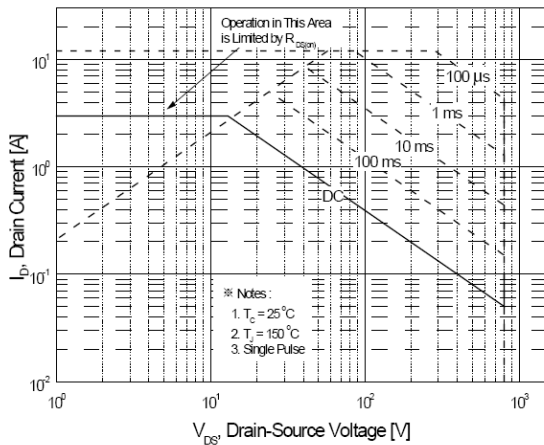


Figure 9. Maximum Safe Operating Area

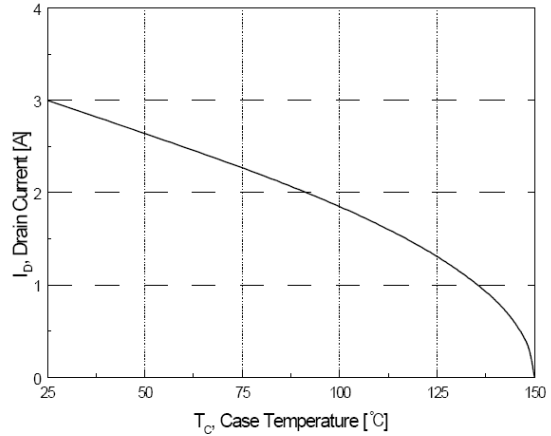


Figure 10. Maximum Drain Current vs Case Temperature

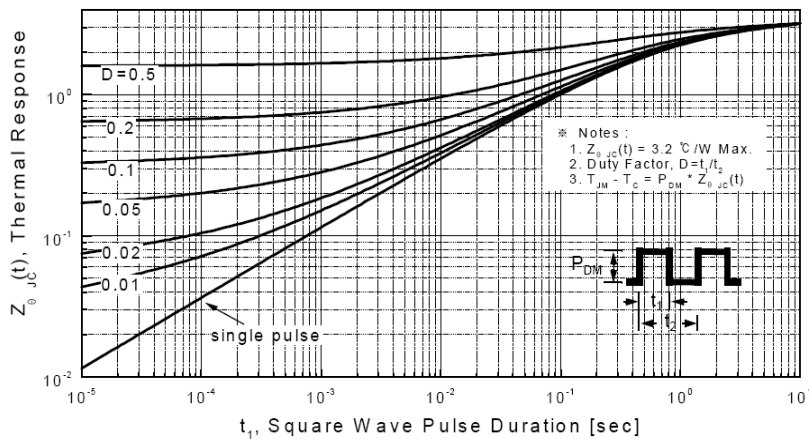


Figure 11. Transient Thermal Response Curve



■ 典型特性曲线

Fig 12. Gate Charge Test Circuit & Waveform

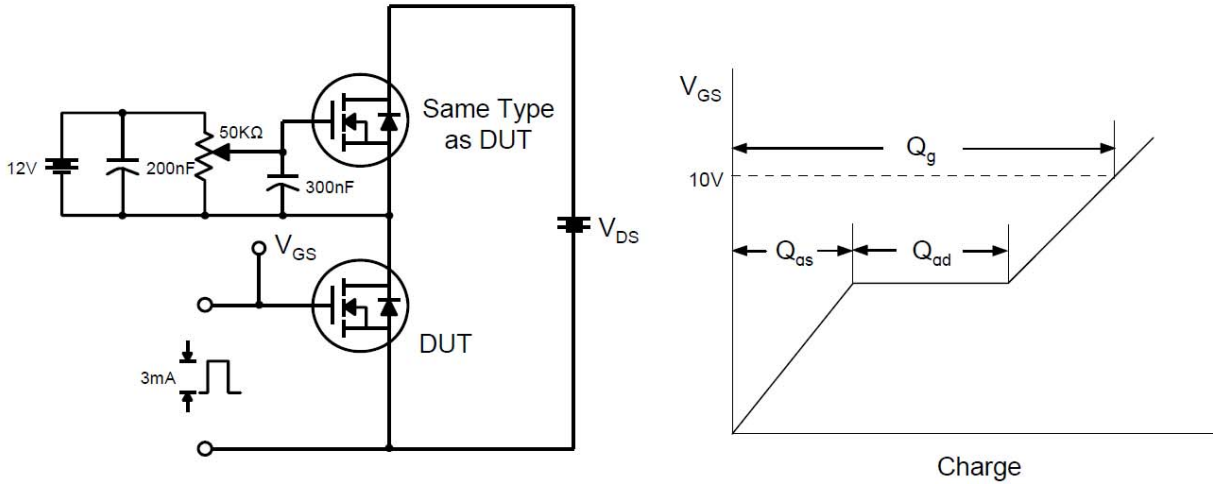


Fig 13. Resistive Switching Test Circuit & Waveforms

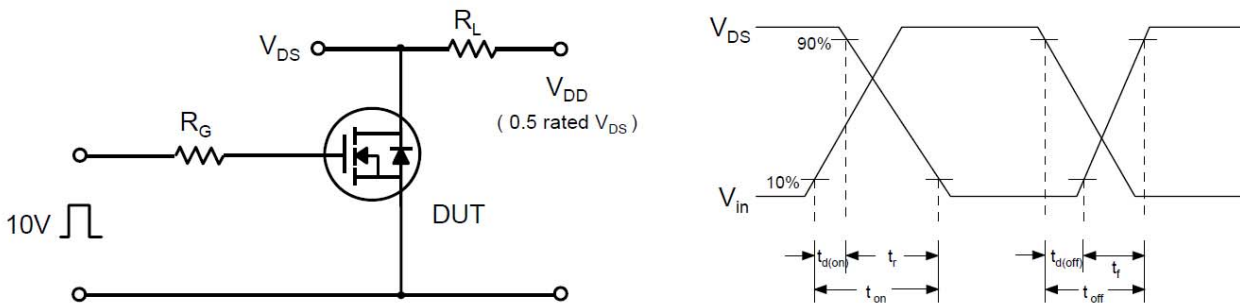
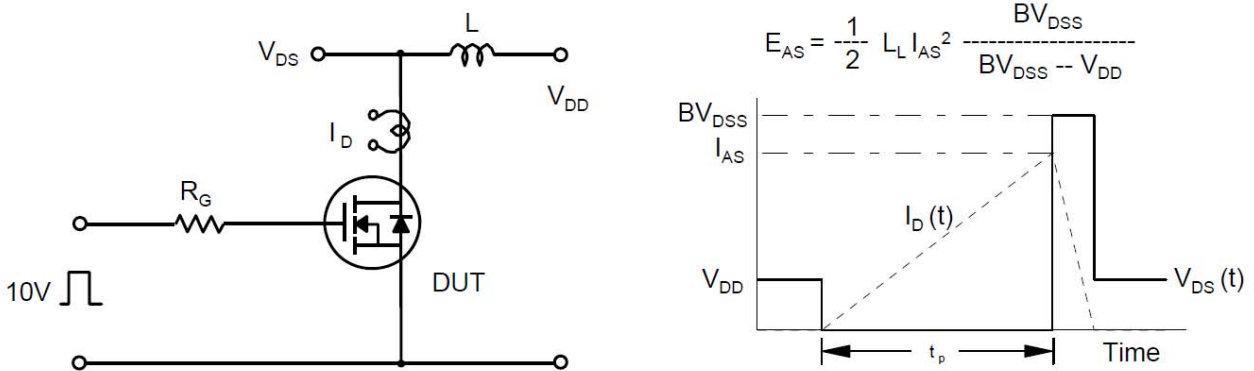


Fig 14. Unclamped Inductive Switching Test Circuit & Waveforms





## ■ 典型特性曲线

Fig 15. Peak Diode Recovery dv/dt Test Circuit & Waveforms

