



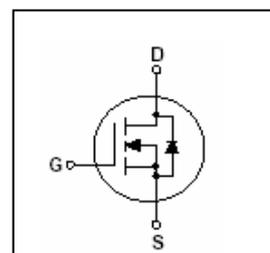
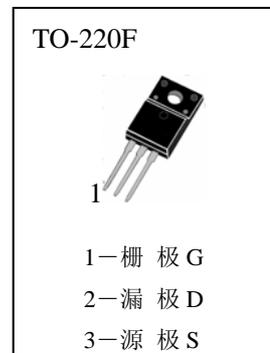
■ 主要用途

高压高速电源开关。

■ 极限值 (T_a=25°C)

T _{stg}	——贮存温度	.....	-55~150°C
T _j	——结温	.....	150°C
V _{DSS}	——漏极—源极电压	.....	600V
V _{GS}	——栅极—源极电压	.....	±30V
I _D	——漏极电流 (T _c =25°C)	.....	12A
I _{DM}	——漏极电流 (脉冲) (注 1)	.....	48A
P _D	——耗散功率 (T _c =25°C)	.....	51W

■ 外形图及引脚排列



■ 电参数 (T_a=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
BVDSS	漏—源极击穿电压	600			V	I _D =250 μA, V _{GS} =0
IDSS	零栅压漏极电流			10	μA	V _D S=600V, V _{GS} =0
IGSS	栅极泄漏电流			±100	nA	V _{GS} =±30V, V _D S=0
VGS(th)	栅—源极开启电压	2.0		4.0	V	V _D S=V _{GS} , I _D =250 μA
RDS(on)	漏—源极导通电阻			0.65	Ω	V _{GS} =10V, I _D =6A
Ciss	输入电容		1760		pF	V _D S=25V, V _{GS} =0, f=1MHz
Coss	输出电容		182		pF	
Crss	反向传输电容		21		pF	
Td(on)	导通延迟时间		30		ns	V _D D=300V, I _D =12A(峰值), R _G =25Ω (注 2)
Tr	上升时间		85		ns	
Td(off)	断开延迟时间		155		ns	
Tf	下降时间		90		ns	V _D S=400V V _{GS} =10V, I _D =12A (注 2)
Qg	栅极总电荷		48		nC	
Qgs	栅极—源极电荷		8.5		nC	
Qgd	栅极—漏极电荷		21		nC	
IS	源极—漏极二极管正向电流			12	A	
VSD	源极—漏极二极管导通电压			1.4	V	I _S =12A, V _{GS} =0
Rth(j-c)	热阻			2.43	°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 μs, 占空比 ≤ 2%



典型特性曲线

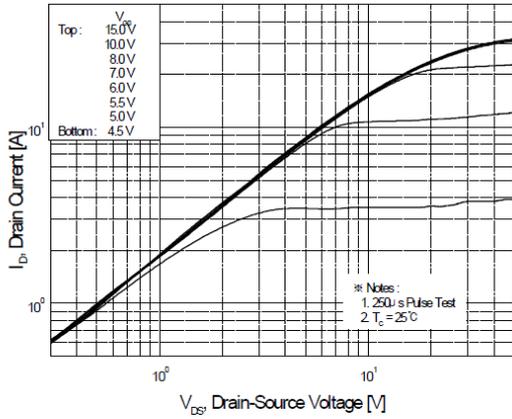


Figure 1. On-Region Characteristics

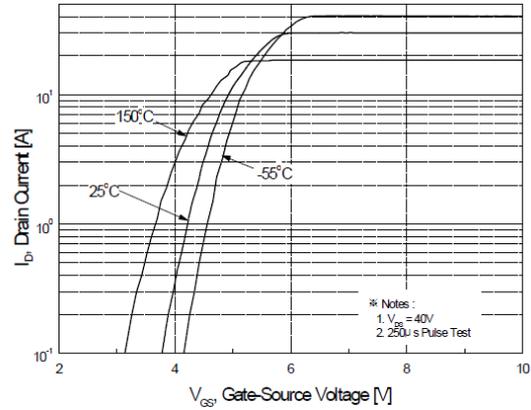


Figure 2. Transfer Characteristics

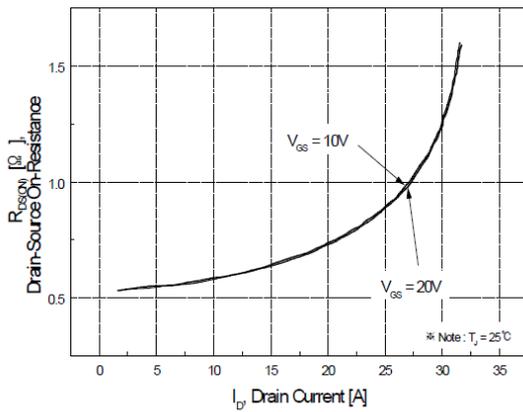


Figure 3. On-Resistance Variation vs Drain Current and Gate Voltage

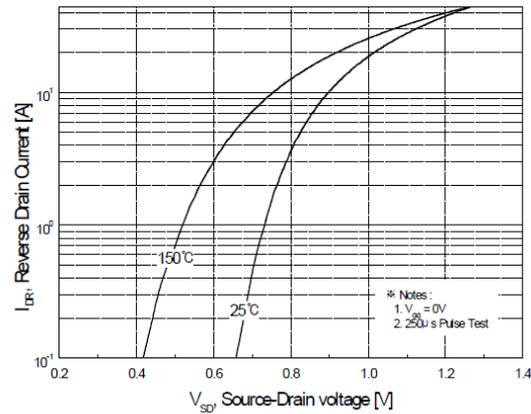


Figure 4. Body Diode Forward Voltage Variation with Source Current and Temperature

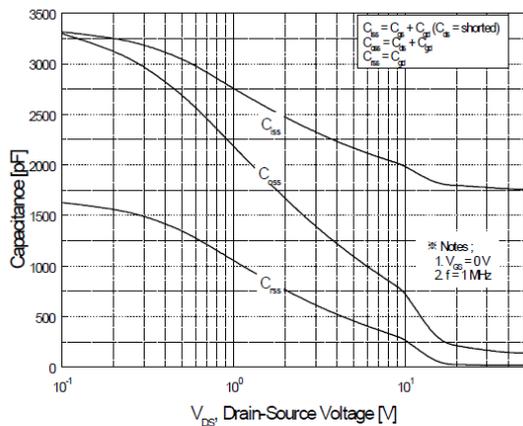


Figure 5. Capacitance Characteristics

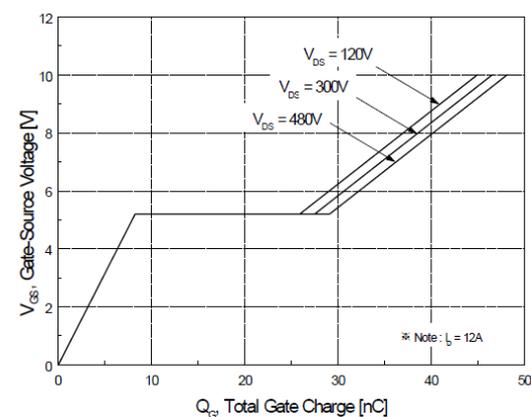


Figure 6. Gate Charge Characteristics



典型特性曲线

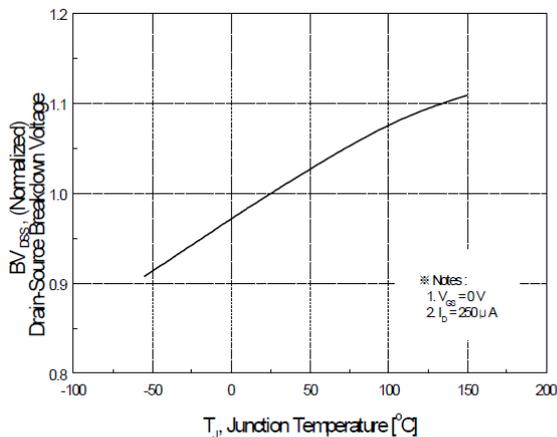


Figure 7. Breakdown Voltage Variation vs Temperature

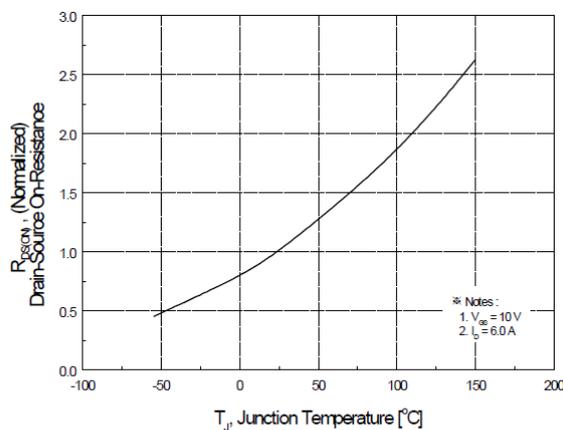


Figure 8. On-Resistance Variation vs Temperature

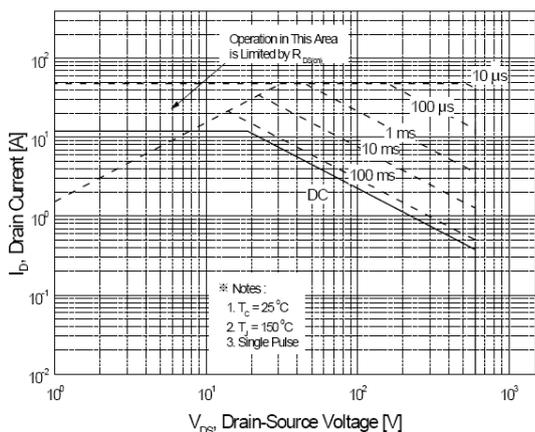


Figure 9. Maximum Safe Operating Area

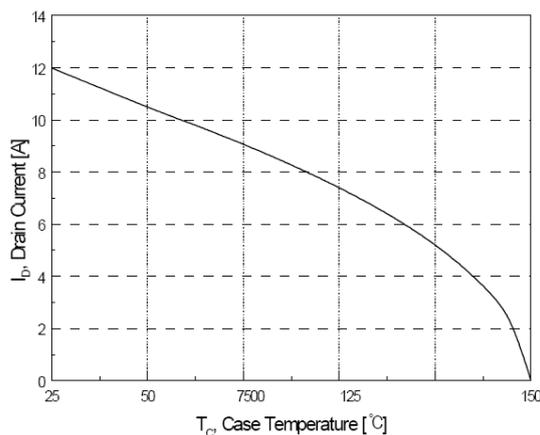


Figure 10. Maximum Drain Current vs Case Temperature

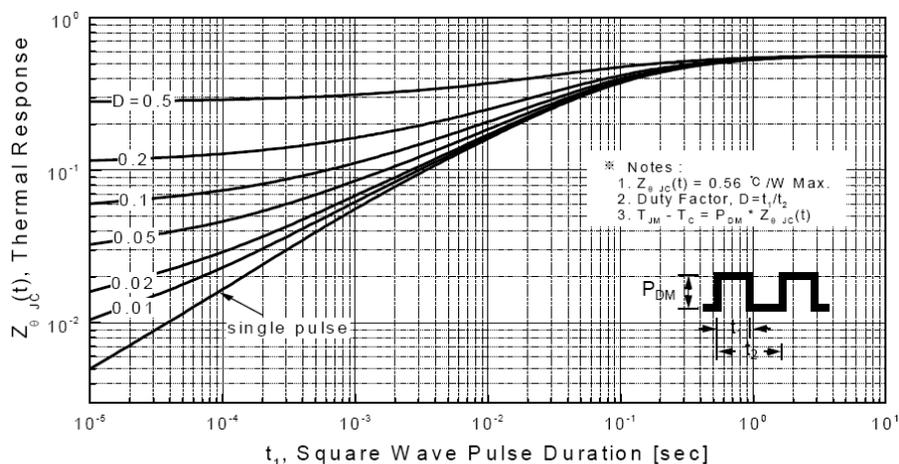
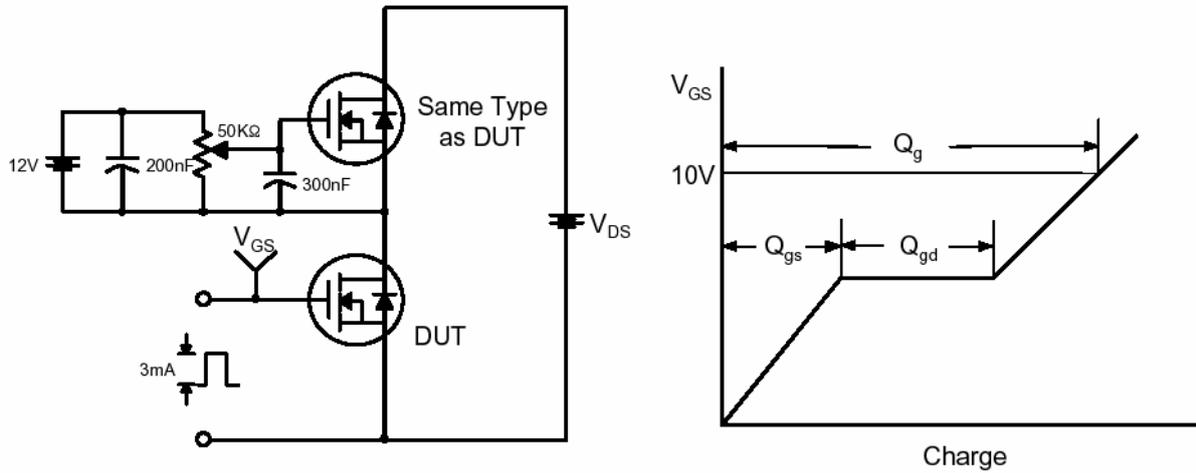


Figure 11. Transient Thermal Response Curve

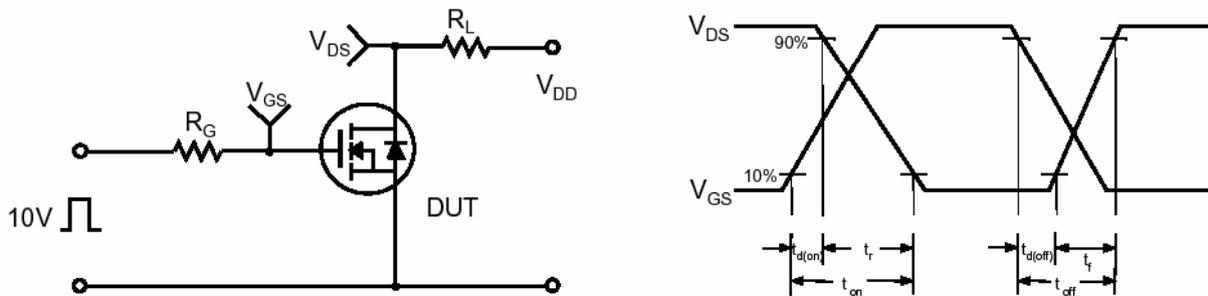


■ 典型特性曲线

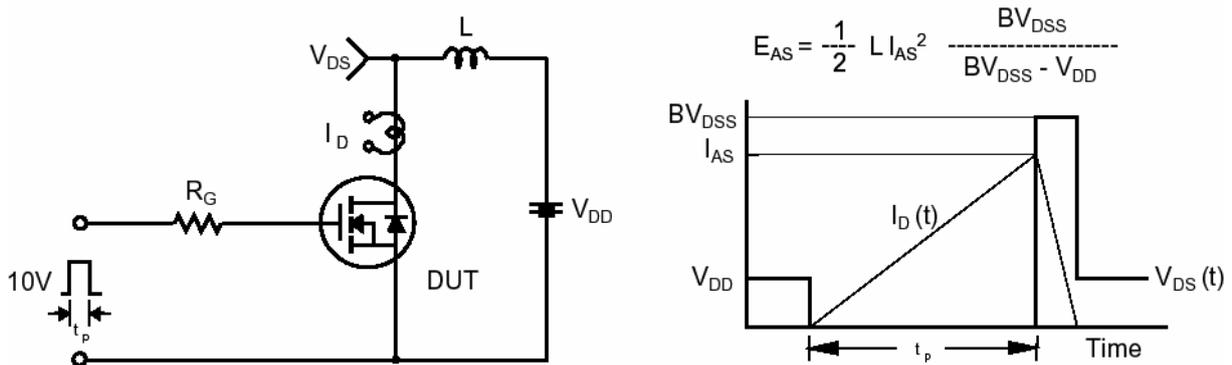
栅极存储电荷测试电路及波形图



开关时间测试电路及波形图



雪崩能量(EAS)测试电路及波形图





■ 典型特性曲线

二极管峰值电压上升率(dv/dt)测试电路及波形图

