



主要用途

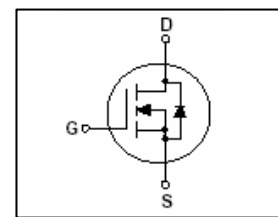
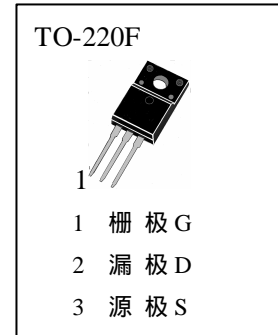
高速开关应用。

极限值 ($T_a=25$)

T_{stg} ——贮存温度.....	-55~150
T_j ——结温.....	150
V_{DSS} ——漏极—源极电压.....	600V
V_{GS} ——栅极—源极电压.....	$\pm 30V$
I_D ——漏极电流 ($T_c=25$)	2.0A
P_D ——耗散功率 ($T_c=25$)	23W

电参数 ($T_a=25$)

外形图及引脚排列



参数符号	符号说明	最小值	典型值	最大值	单位	测试条件
BV_{DSS}	漏—源极击穿电压	600			V	$I_D=250 \mu A, V_{GS}=0V$
I_{DSS}	零栅压漏极电流			10	μA	$V_{DS}=600V, V_{GS}=0$
I_{GSS}	栅极泄漏电流			± 100	nA	$V_{GS}=\pm 30V, V_{DS}=0V$
$V_{GS(th)}$	栅—源极开启电压	2.0		4.0	V	$V_{DS}=V_{GS}, I_D=250 \mu A$
$R_{DS(on)}$	漏—源极导通电阻		3.8	5.0	?	$V_{GS}=10V, I_D=1.0A$
g_{fs}	正向跨导		2.05		S	$V_{DS}=40V, I_D=1.0A$ *
C_{iss}	输入电容		180	235	pF	} $V_{DS}=25V, V_{GS}=0, f=1MHz$
C_{oss}	输出电容		20	25	pF	
C_{rss}	反向传输电容		4.3	3	pF	
$t_{d(on)}$	导通延迟时间		9	28	nS	} $V_{DD}=300V,$ $I_D=2A$ (峰值) $R_G=25$
t_r	上升时间		25	60	nS	
$t_{d(off)}$	断开延迟时间		24	58	nS	
t_f	下降时间		28	66	nS	} *
Q_g	栅极总电荷		8.5	12	nC	} $V_{DS}=480V$ $V_{GS}=10V$ $I_D=2A$ *
Q_{gs}	栅极—源极电荷		1.3		nC	
Q_{gd}	栅极—漏极电荷		4.1		nC	
I_s	源极—漏极二极管正向电流			2.0	A	
V_{SD}	源极—漏极二极管导通电压			1.4	V	$I_s=2.0A, V_{GS}=0$
$R_{th(j-c)}$	热阻			5.5	/W	结到外壳

*注：脉冲测试，宽度 300 μS , 占空比 2%



特性曲线

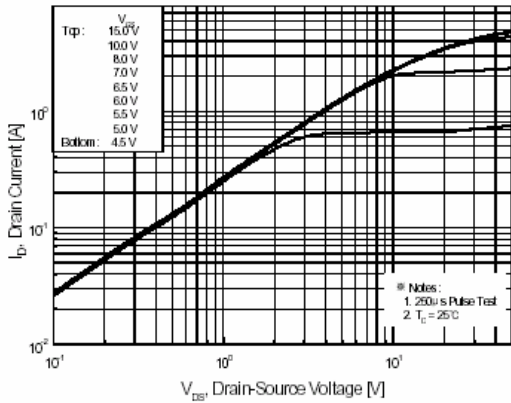


Figure 1. On-Region Characteristics

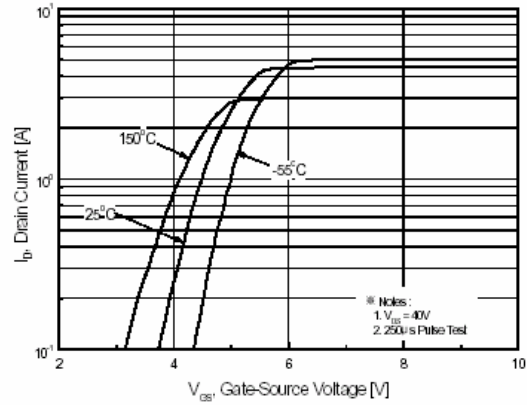


Figure 2. Transfer Characteristics

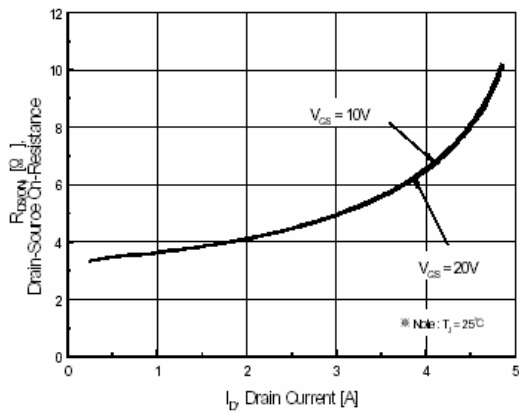


Figure 3. On-Resistance Variation vs Drain Current and Gate Voltage

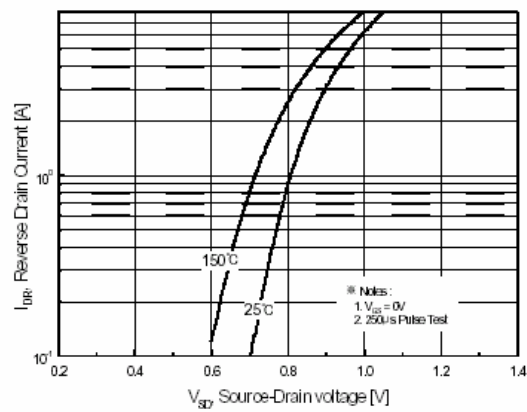


Figure 4. Body Diode Forward Voltage Variation with Source Current and Temperature

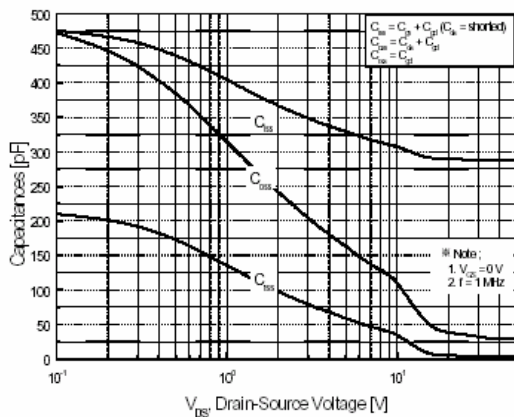


Figure 5. Capacitance Characteristics

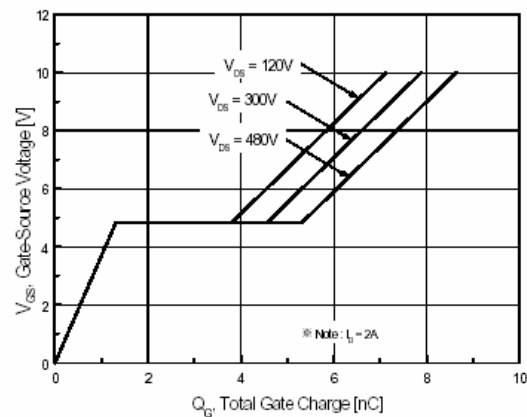


Figure 6. Gate Charge Characteristics



特性曲线

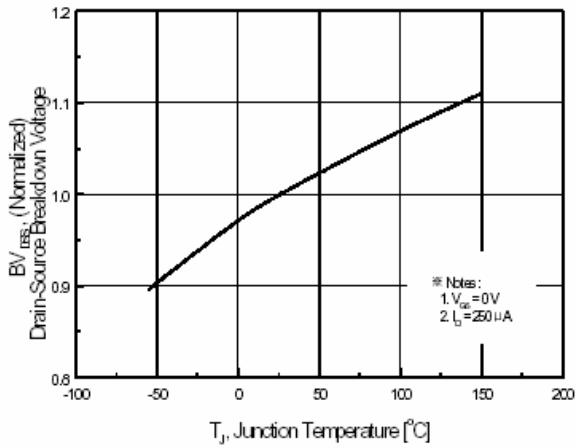


Figure 7. Breakdown Voltage Variation vs Temperature

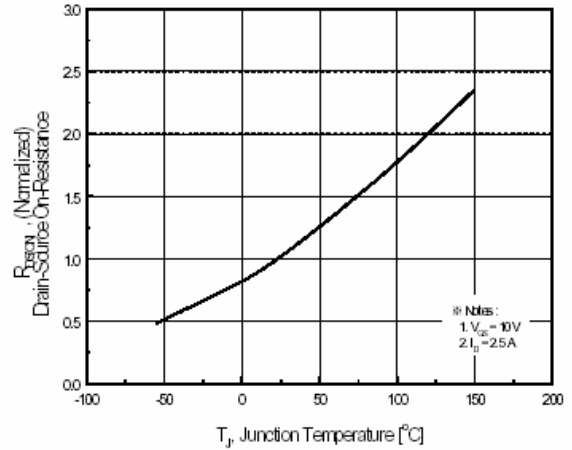


Figure 8. On-Resistance Variation vs Temperature

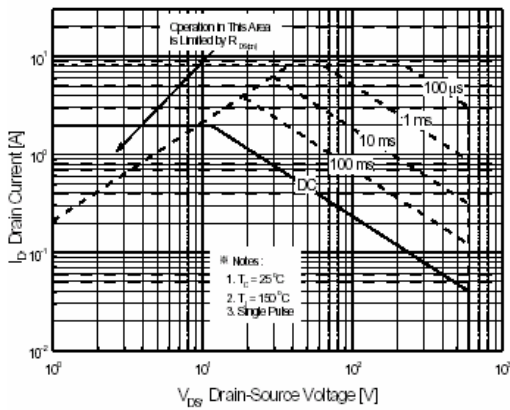


Figure 9-2. Maximum Safe Operating Area for HFF2N60

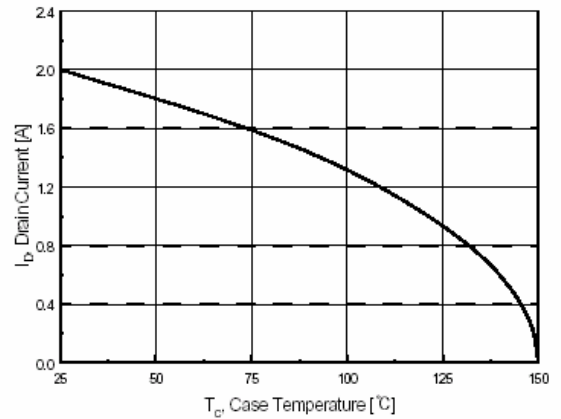


Figure 10. Maximum Drain Current vs Case Temperature

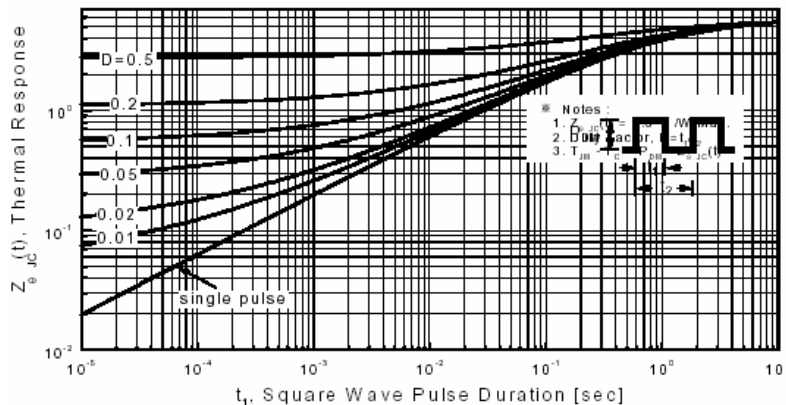
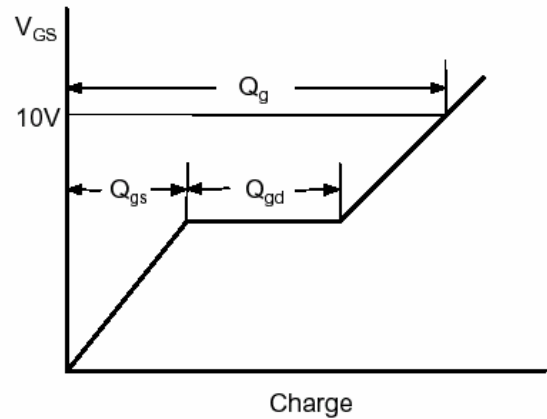
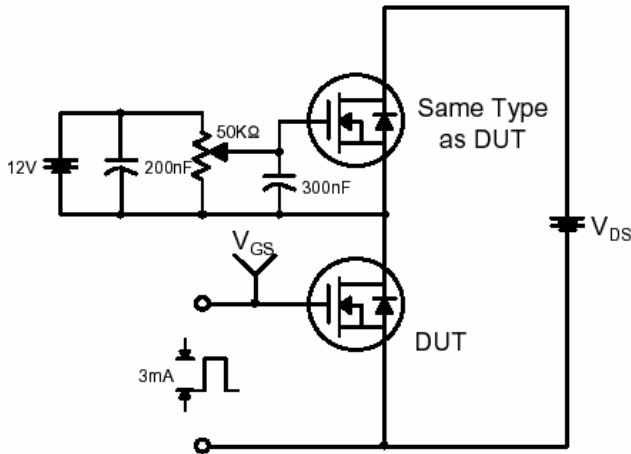


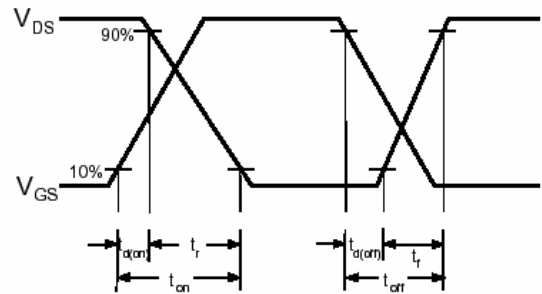
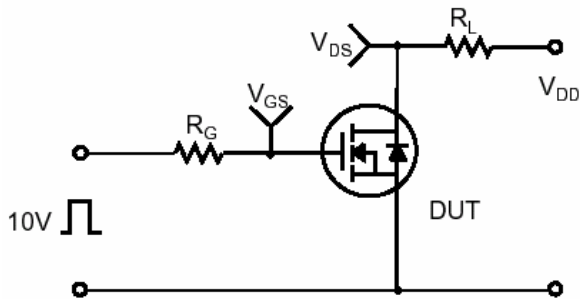
Figure 11-2. Transient Thermal Response Curve for HFF2N60



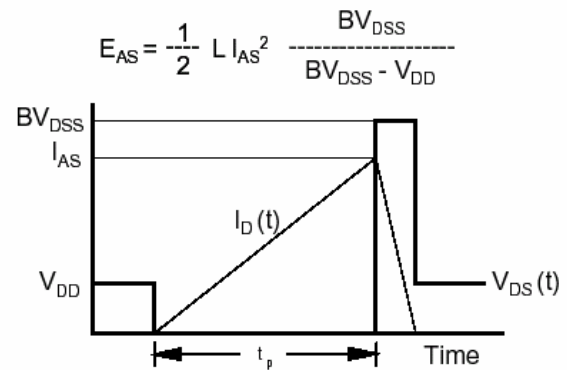
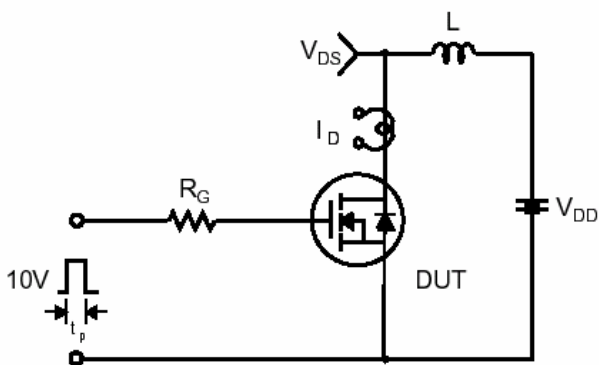
Gate Charge Test Circuit & Waveform



Resistive Switching Test Circuit & Waveforms



Unclamped Inductive Switching Test Circuit & Waveforms





Peak Diode Recovery dv/dt Test Circuit & Waveforms

