用途:用于高效 DC/DC 转换和功率开关。

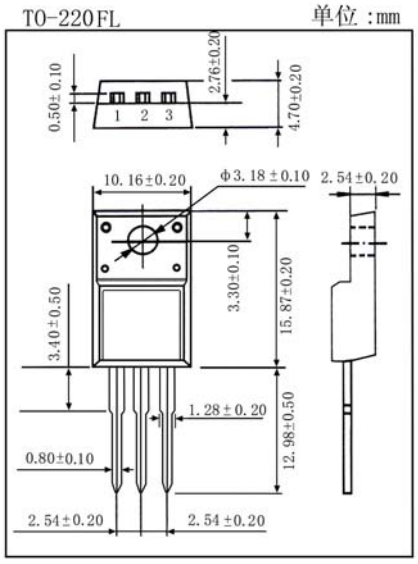
Purpose: These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

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℃)

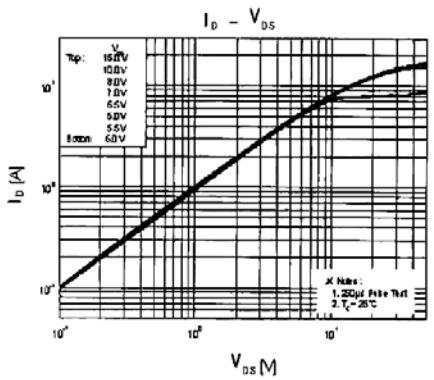
参数符号 Symbol	数值 Rating	单位 Unit
V_{DSS}	650	V
I_D(Tc=25℃)	7.5	A
I_D(Tc=100℃)	4.6	A
I_{DM}	30	A
V_{GSS}	±30	V
E_{AS}	230	mJ
E_{AR}	10	mJ
I_{AR}	7.5	A
P_D(Tc=25℃)	48	W
T_J, T_{STG}	-55 to 150	℃

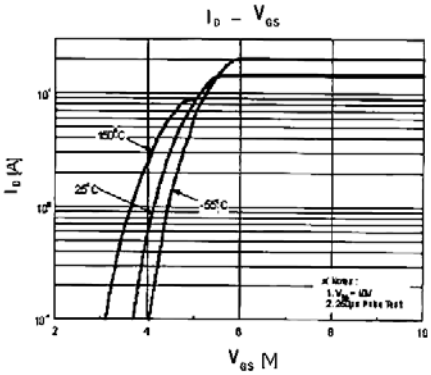


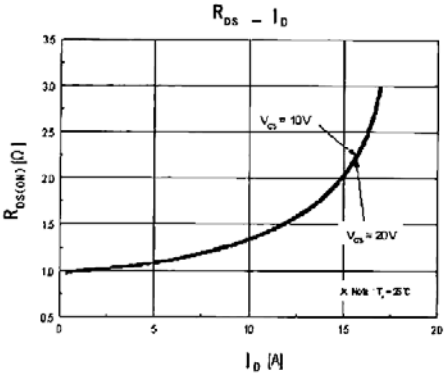
引脚： 1.G 2.D 3.S

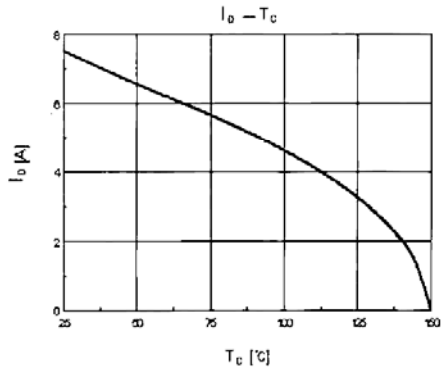
电性能参数/Electrical Characteristics(Ta=25℃)

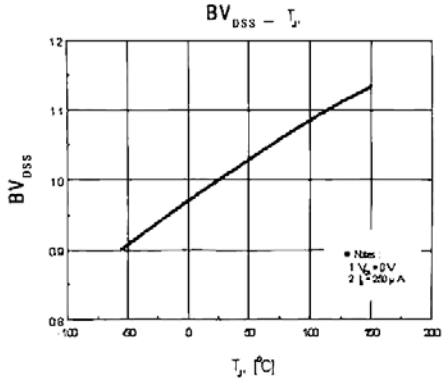
参数符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
BV_{DSS}	V_{GS}=0V I_D=250μA	650			V
I_{DSS}	V_{DS}=650V V_{GS}=0V			1.0	μA
	V_{DS}=480V T_C=125℃			10	μA
I_{GSS}	V_{GS}=±30V V_{DS}=0V			±0.1	μA
$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	2.0		4.0	V
$R_{DS(on)}$	V_{GS}=10V I_D=3.75A		1.0	1.4	Ω
g_{FS}	V_{DS}=40V I_D=3.75A		8.7		S
V_{SD}	V_{GS}=0V I_S=7.5A			1.4	V
C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		965	1255	pF
C_{oss}			105	135	
C_{rss}			12	16	
$t_{d(on)}$	V_{DD}=300V I_D=7.5A R_G=25Ω		16.5	45	ns
t_r			60.5	130	
$t_{d(off)}$			81	170	
t_f			64.5	140	

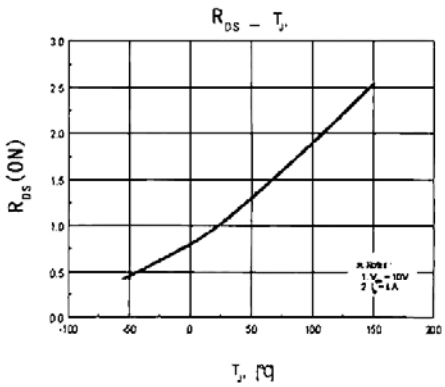

$I_D - V_{DS}$
I_D [A]
V_{DS} [V]

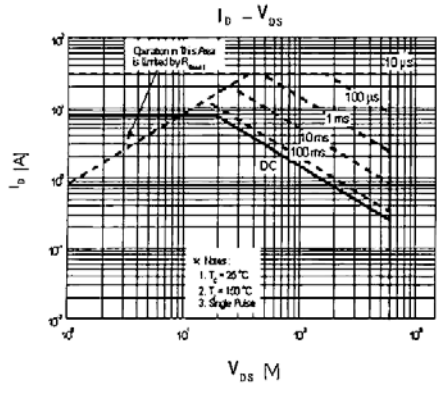

$I_D - V_{GS}$
150°C
25°C
-55°C
I_D [A]
V_{GS} [V]

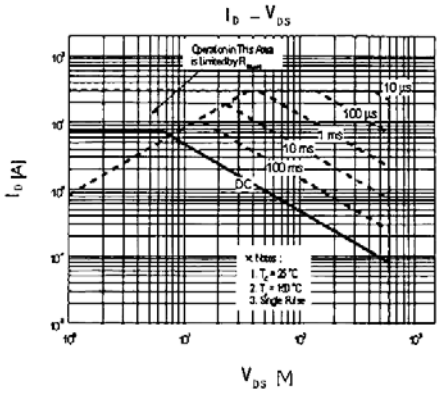

$R_{DS} - I_D$
V_{GS} = 10V
V_{GS} = 20V
$R_{DS(ON)}$ [Ω]
I_D [A]


$I_D - T_C$
I_D [A]
T_C [°C]


$BV_{DSS} - T_J$
BV_{DSS}
T_J [°C]


$R_{DS} - T_J$
R_{DS}(ON)
T_J [°C]


$I_D - V_{DS}$
10 μs
100 μs
1 ms
10 ms
100 ms
DC
I_D [A]
V_{DS} [V]


$I_D - V_{DS}$
10 μs
100 μs
1 ms
10 ms
100 ms
DC
I_D [A]
V_{DS} [V]