

用途:用于高效 DC/DC 转换和功率开关。

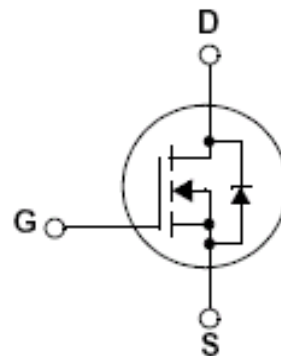
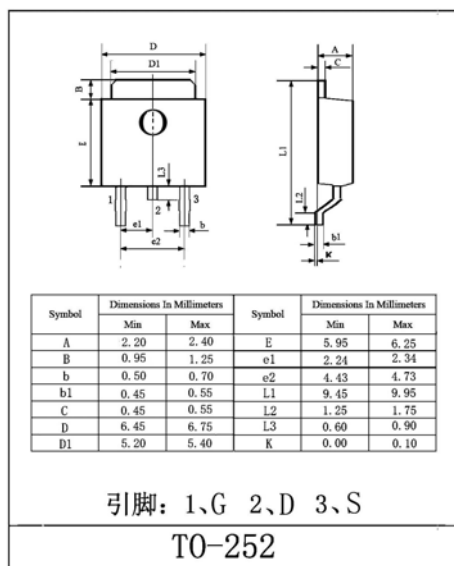
Purpose: These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

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 ($T_a=25^\circ\text{C}$)

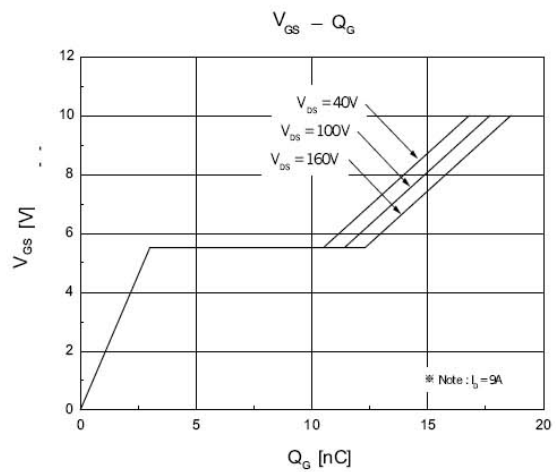
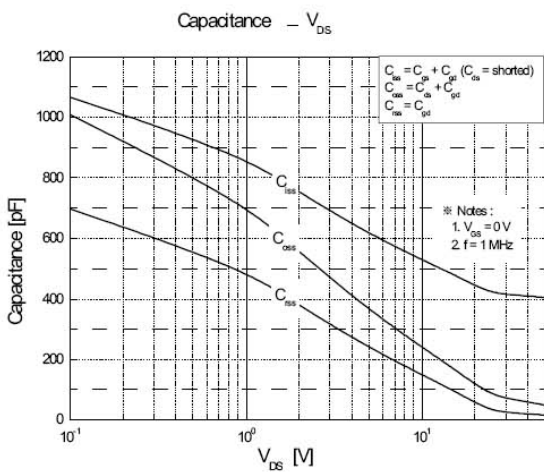
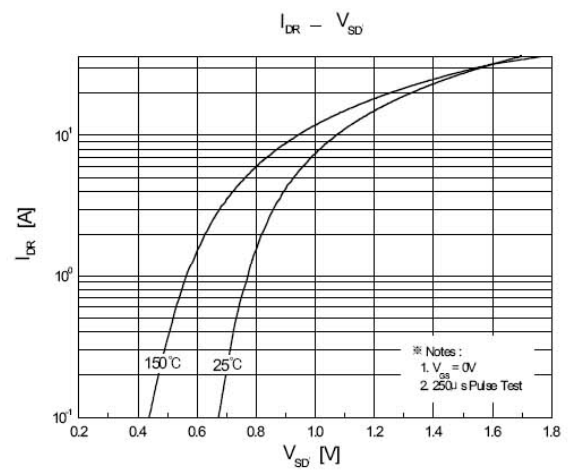
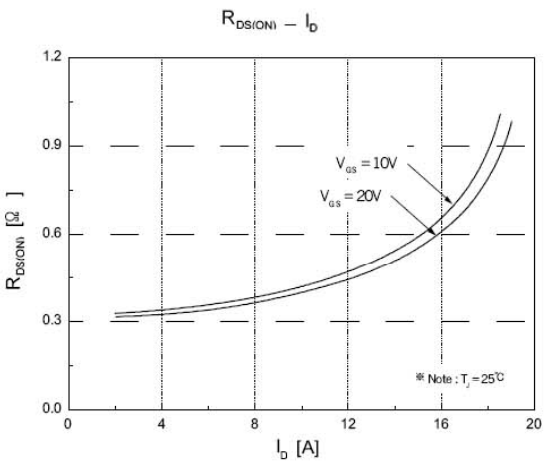
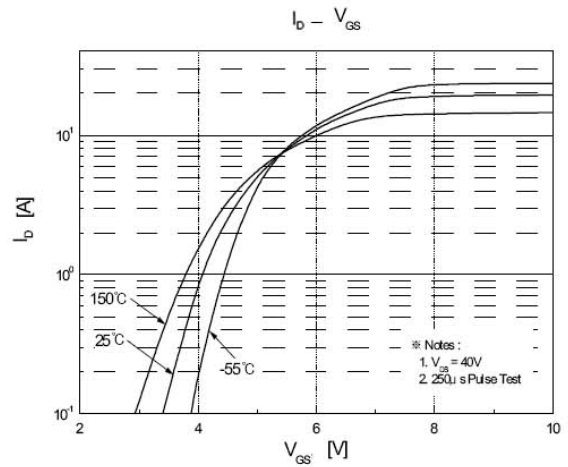
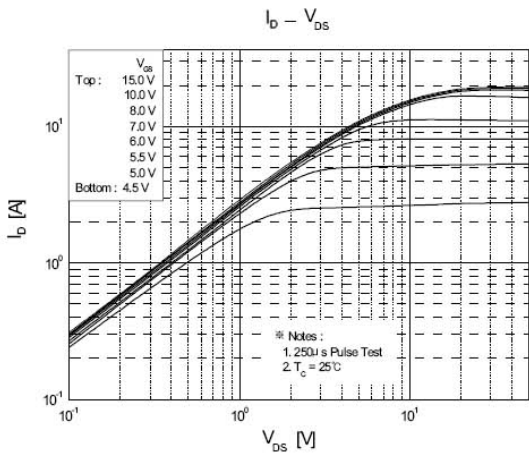
参数符号 Symbol	数值 Rating	单位 Unit
V_{DSS}	200	V
$I_D (T_c=25^\circ\text{C})$	9	A
$I_D (T_c=100^\circ\text{C})$	5.7	A
I_{DM}	36	A
V_{GSS}	± 30	V
I_{AR}	9	A
E_{AS}	160	mJ
E_{AR}	4.6	mJ
dv/dt	5.5	V/ns
$P_D (T_A=25^\circ\text{C})$	2.5	W
$P_D (T_C=25^\circ\text{C})$	46	W
R_{qJC}	2.7	$^\circ\text{C}/\text{W}$
R_{qJA}	110	$^\circ\text{C}/\text{W}$
T_J, T_{STG}	-55 to 150	$^\circ\text{C}$



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_{DSS}	$V_{GS}=0V$ $I_D=250 \mu A$	200			V
$\Delta BV_{DSS}/\Delta T_J$	$I_D=250 \mu A$		0.2		V/°C
I_{DSS}	$V_{DS}=200V$ $V_{GS}=0V$			1	μA
	$V_{DS}=160V$ $T_C=125^\circ C$			10	μA
I_{GSS}	$V_{GS}=\pm 25V$ $V_{DS}=0V$			± 0.1	μA
$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250 \mu A$	2		4	V
$R_{DS(on)}$	$V_{GS}=10V$ $I_D=4.5A$		0.34	0.4	Ω
g_{FS}	$V_{DS}=40V$ $I_D=4.5A$		4.2		S
C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1MHz$		420	550	pF
C_{oss}			85	110	
C_{rSS}			35	45	
$t_{d(on)}$	$V_{DD}=100V$ $I_D=9A$ $R_G=25 \Omega$		8	30	ns
t_r			75	160	
$t_{d(off)}$			47	110	
t_f			64	140	
Q_g	$V_{DS}=160V$ $I_D=9A$ $V_{GS}=10V$		19	25	nC
Q_{gs}			3		nC
Q_{gd}			9.5		nC
I_S				7	A
I_{SM}				28	A
V_{SD}	$V_{GS}=0V$ $I_S=9A$			1.5	V
t_{rr}	$V_{GS}=0V$ $I_S=9A$		150		ns
Q_{rr}	$dI_F/dt=100A/\mu s$		0.68		μC

BRD630 (CS630D)



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