

用途：用于高功率 DC/DC 转换和功率开关。

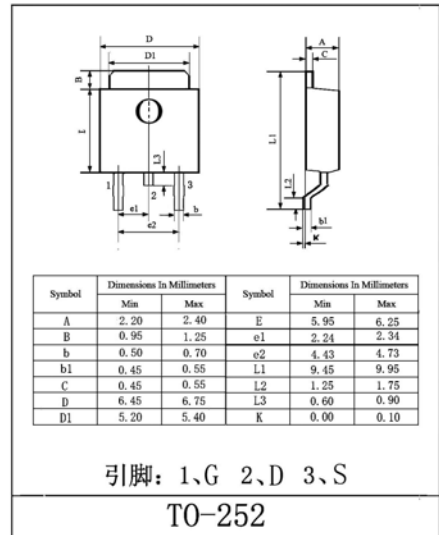
Purpose: These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

特点：具有低导通电阻的超高密度设计，坚固可靠，表面贴装封装。

Features: Super high dense cell design for low $R_{DS(on)}$, Rugged and reliable, surface mount package.

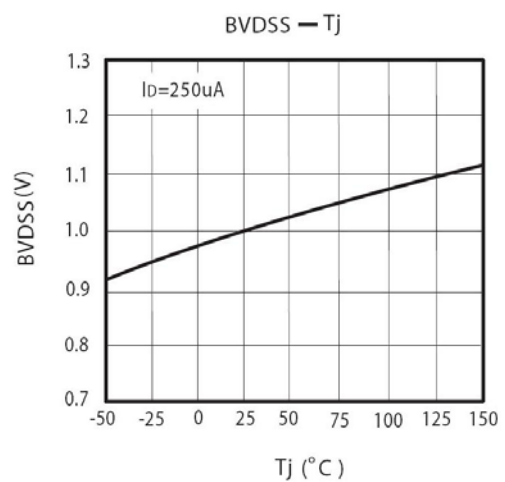
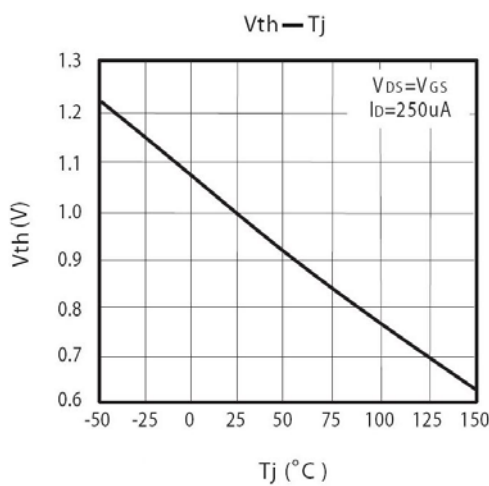
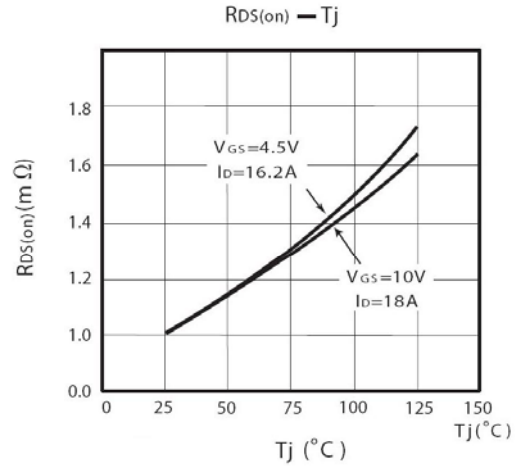
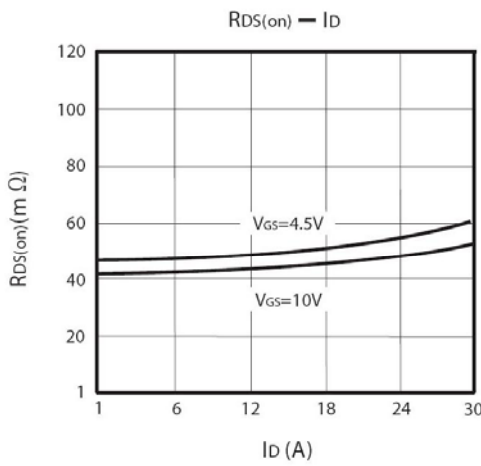
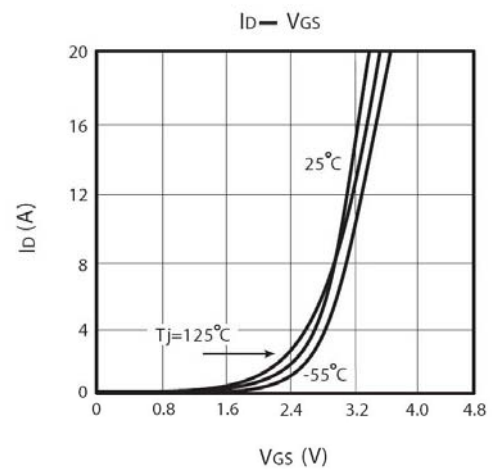
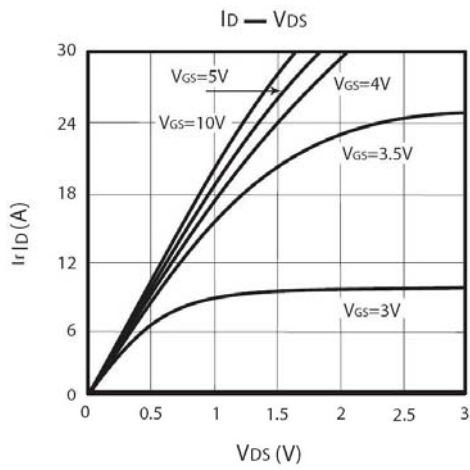
极限参数/Absolute maximum ratings ($T_a=25^\circ\text{C}$)

参数符号 Symbol	数值 Rating	单位 Unit
V_{DS}	60	V
$I_D(T_c=25^\circ\text{C})$	18	A
$I_D(T_c=70^\circ\text{C})$	14.5	A
I_{DM}	72	A
V_{GS}	± 20	V
E_{AS}	25	mJ
$P_D(T_c=25^\circ\text{C})$	36	W
$P_D(T_c=70^\circ\text{C})$	23	W
T_J, T_{STG}	-55 to 150	$^\circ\text{C}$



电性能参数/Electrical Characteristics ($T_a=25^\circ\text{C}$)

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}	$V_{GS}=0V$ $I_D=250\mu A$	60			V
I_{DSS}	$V_{DS}=48V$ $V_{GS}=0V$			1.0	μA
I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.8	3.0	V
$R_{DS(on)}$	$V_{GS}=10V$ $I_D=18A$		45	55	$m\Omega$
	$V_{GS}=4.5V$ $I_D=16.2A$		50	68	$m\Omega$
g_{FS}	$V_{DS}=30V$ $I_D=18A$		16		S
V_{SD}	$V_{GS}=0V$ $I_S=1.7A$		0.79	1.3	V
C_{iss}	$V_{DS}=30V$ $V_{GS}=0V$ $f=1.0MHz$		825		pF
C_{oss}			72		pF
C_{rSS}			48		pF
$t_{d(on)}$			13		ns
t_r	$V_{DD}=30V$ $I_D=1.0A$		12.5		ns
$t_{d(off)}$	$V_{GS}=10V$ $R_{GEN}=3.3\Omega$		38		ns
t_f			6		ns



BRD18N06 (CS18N06D)

