

BRI2N65 (CS2N651)

N-CHANNEL MOSFET/N 沟道 MOS 晶体管

用途：用于大功率 DC/DC 转换和功率开关。

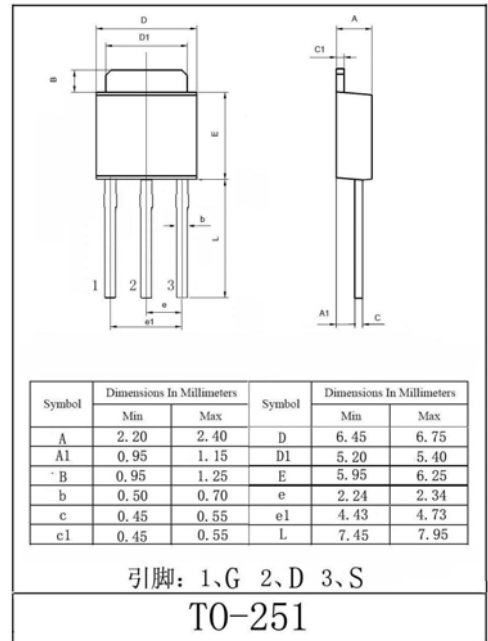
Purpose: These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

特点：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°C)

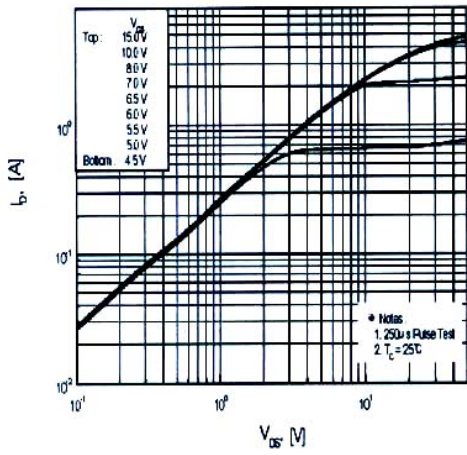
参数符号 Symbol	数值 Rating	单位 Unit
V_{DSS}	650	V
$I_D (T_c=25^\circ C)$	2.0	A
$I_D (T_c=100^\circ C)$	1.3	A
I_{DM}	6.0	A
V_{GSS}	± 30	V
E_{AS}	120	mJ
E_{AR}	5.4	mJ
I_{AR}	2.0	A
$P_D (T_c=25^\circ C)$	45	W
T_J, T_{STG}	-55 to 150	°C
$R \theta_{JA}$	83.3	°C/W
$R \theta_{JC}$	2.7	°C/W



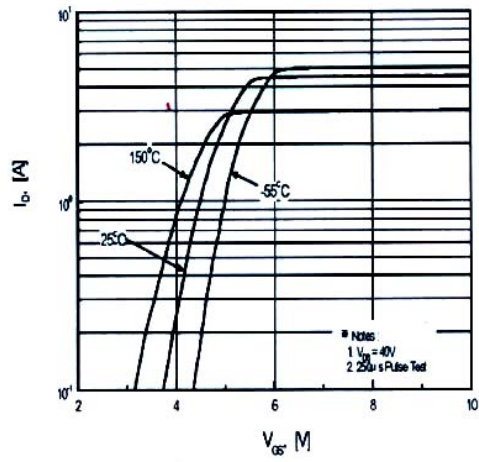
电性能参数/Electrical Characteristics (Ta=25°C)

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}	$V_{GS}=0V$ $I_D=250 \mu A$	600			V
I_{DSS}	$V_{DS}=650V$ $V_{GS}=0V$			1.0	μA
	$V_{DS}=480V$ $T_c=125^\circ C$			100	μA
I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 0.1	μA
$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250 \mu A$	2.0		4.0	V
$R_{DS(on)}$	$V_{GS}=10V$ $I_D=1.0A$		4.0	5.0	Ω
g_{FS}	$V_{DS}=40V$ $I_D=1.0A$		2.05		S
V_{SD}	$V_{GS}=0V$ $I_S=2.0A$			1.4	V
C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		320	420	pF
C_{oss}			35	46	pF
C_{rss}			4.5	6.0	pF
$t_{d(on)}$	$V_{DD}=300V$ $I_D=2.0A$ $R_G=25 \Omega$		8.0	30	ns
t_r			23	60	ns
$t_{d(off)}$			25	60	ns
t_f			28	70	ns

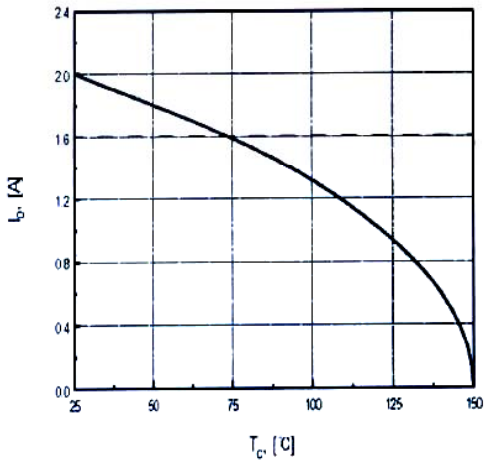
$I_D - V_{DS}$



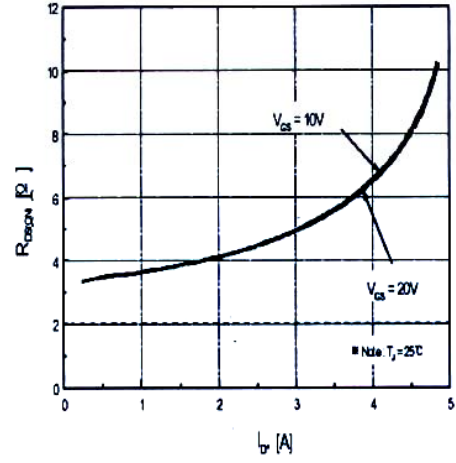
$I_D - V_{GS}$



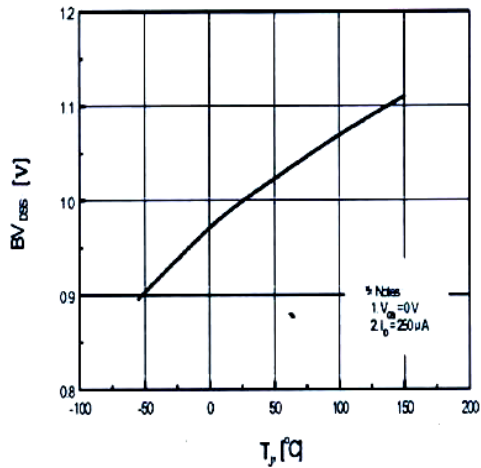
$I_D - T_c$



$R_{DS(ON)} - I_D$



$BV_{DSS} - T_J$



$R_{DS(ON)} - T_J$

