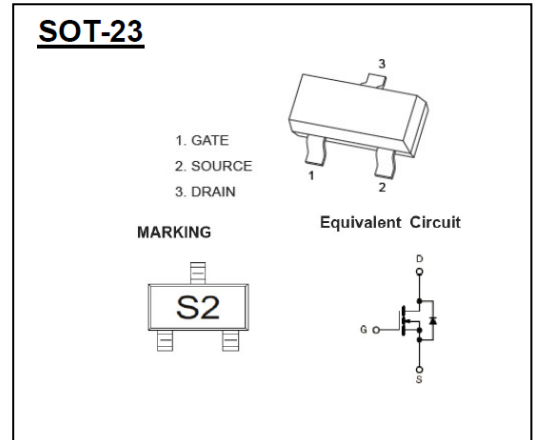


●N-Channel Enhancement Mode Field Effect MOSFET

特性: Features

- High dense cell design for extremely low RDS(on).
- Exceptional on-resistance and maximum DC current capability.
- Load/Power Switching.
- Interfacing Switching

V(BR)DSS	RDS(ON)MAX	ID
20V	60mΩ@4.5V	2.1A
	115mΩ@2.5V	



极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Drain-Source Voltage	Vds	20	V
Gate-Source Voltage	Vgs	±8	V
Continuous Drain Current	Id	2.1	A
Continuous Source-Drain Diode Current	Is	0.6	
Power Dissipation	Pd	400	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-50-+150	°C
Thermal Resistance From Junction to Ambient	RθJA	312.5	°C/W

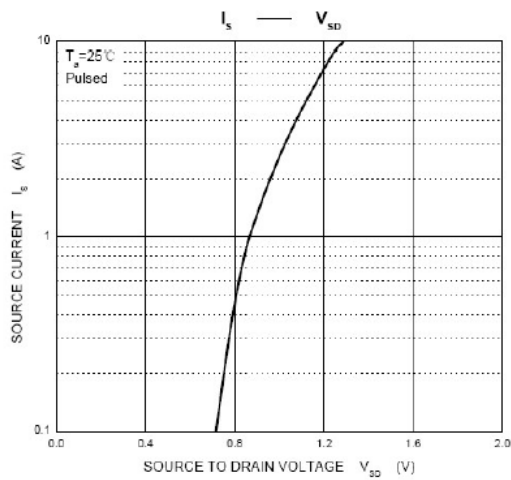
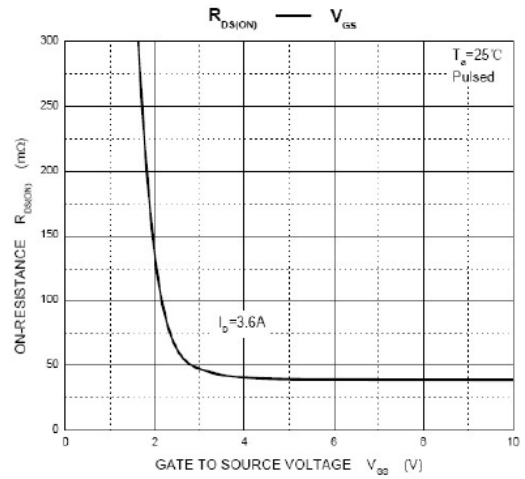
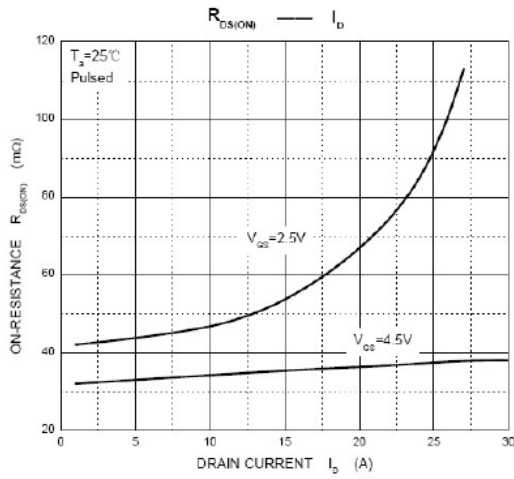
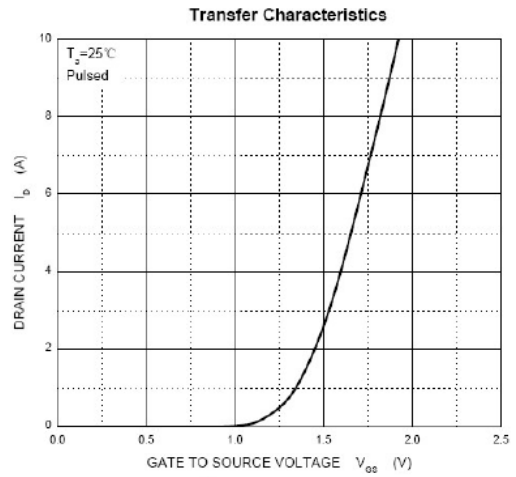
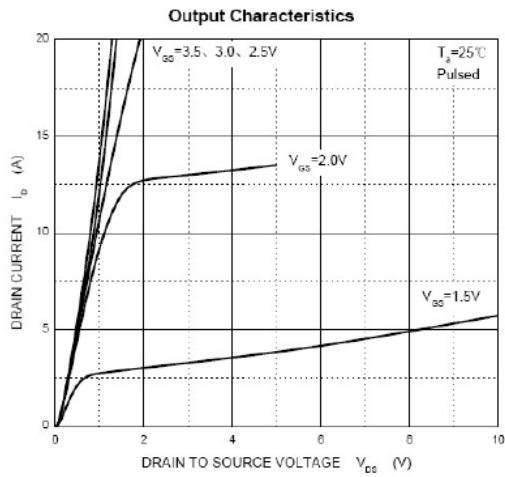
电特性 (TA = 25°C 除非另有规定)

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

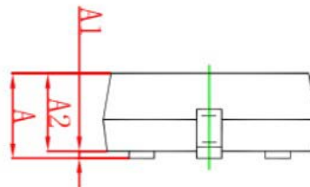
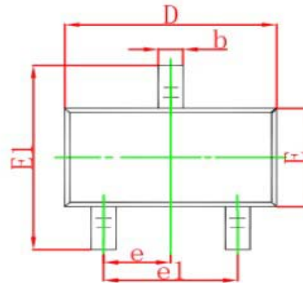
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits			单位 Unit
			Min	Typ	Max	
Static						
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=10uA	20			V
Gate-Threshold voltage*	VGS(th)	VDS=VGS, ID=50uA	0.65	0.95	1.2	V
Gate-body Leakage	IGSS	VDS=0V, VGS=±8V			±100	nA
Zero Gate Voltage Drain current	IDSS	VDS=20V, VGS=0V			1	uA
Drain-Source On-Resistance (a)	RDS(ON)	VGS=4.5V, ID=3.6A		35	60	mΩ
		VGS=2.5V, IC=3.1A		45	115	
Forward trans conductance (a)	gfs	VDS=5V, ID=3.6A		8		S
Diode forward voltage	VSD	IS=0.94A, VGS=0V		0.76	1.2	V
Dynamic						
Input capacitance(b)	Ciss	VDS=10V, VGS=0V, f=1MHz		300		pF
Output capacitance(b)	Coss			120		
Reverse Transfer capacitance(b)	Crss			80		
Total gate charge	Qg	VDS=10V, VGS=4.5V, ID=3.6A		4.0	10	nC
Gate-source charge	Qgs			0.65		
Gate-drain charge	Qgd			1.5		
Switching (b)						
Turn-on Time	td(on)	VDD=10V, RL=5.5Ω, VGEN=4.5V, ID≈3.6A, RG=6Ω		7	15	ns
Rise time	tr			55	80	
Turn-off Time	td(off)			16	60	
Fall time	tf			10	25	

Notes: a. Pulse Test: Pulse Width ≤300us, Duty Cycle≤2%.

Typical characteristics



DIMENSION SOT-23 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°