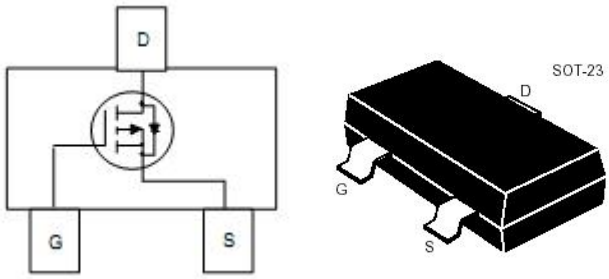
SOT-23 Field Effect Transistors)



P-Channel Enhancement-Mode MOS FETs

P MOS

■MAXIMUM RATINGS

Characteristic	Symbol	Rat	Unit
Drain-Source Voltage	BV_{DSS}	-20	V
Gate- Source Voltage	V_{GS}	±10	V
Drain Current (continuous)	I_D	-3.9	A
Drain Current (pulsed)	I_{DM}	-15	A
Total Device Dissipation T_A=25℃	P_D	1200	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55to+150	℃

■ELECTRICAL CHARACTERISTICS 電特性

(T_A=25℃ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage (I_D = -250uA,V_{GS}=0V)	BV_{DSS}	-20	—	—	V
Gate Threshold Voltage (I_D = -250uA,V_{GS}= V_{DS})	$V_{GS(th)}$	-0.5	—	-1.5	V
Diode Forward Voltage Drop (I_S= -0.75A,V_{GS}=0V)	V_{SD}	—	—	-1.5	V
Zero Gate Voltage Drain Current (V_{GS}=0V, V_{DS}= -16V) (V_{GS}=0V, V_{DS}= -16V, T_A=55℃)	I_{DSS}	—	—	-1 -10	uA
Gate Body Leakage (V_{GS}=±8V, V_{DS}=0V)	I_{GSS}	—	—	±100	nA
Static Drain-Source On-State Resistance(I_D= -3.9A,V_{GS}= -4.5V)	$R_{DS(ON)}$	—	55	65	mΩ
Static Drain-Source On-State Resistance(I_D= -2A,V_{GS}= -2.5V)	$R_{DS(ON)}$	—	70	80	mΩ
Input Capacitance (V_{GS}=0V, V_{DS}= -10V,f=1MHz)	C_{ISS}	—	750	—	pF
Output Capacitance (V_{GS}=0V, V_{DS}= -10V,f=1MHz)	C_{OSS}	—	120	—	pF
Turn-ON Time (V_{DS}= -10V, I_D= -2.8A, R_{GEN}=6Ω)	$t_{(on)}$	—	8	—	ns
Turn-OFF Time (V_{DS}= -10V, I_D= -2.8A, R_{GEN}=6Ω)	$t_{(off)}$	—	60	—	ns

Pulse Width≤300 μs; Duty Cycle≤2.0%

■TYPICAL CHARACTERISTIC CURVE

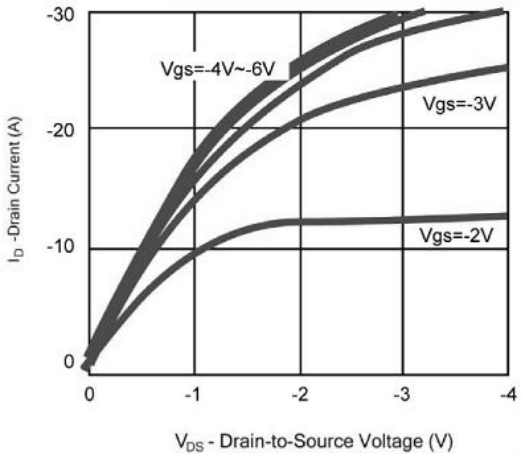


Fig 1: Output Characteristics

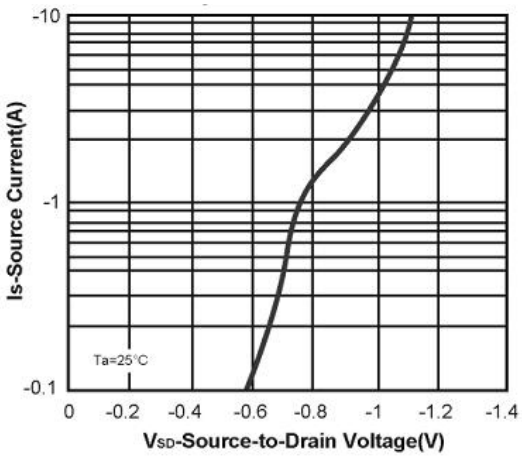


Figure 2: Body-Diode Characteristics

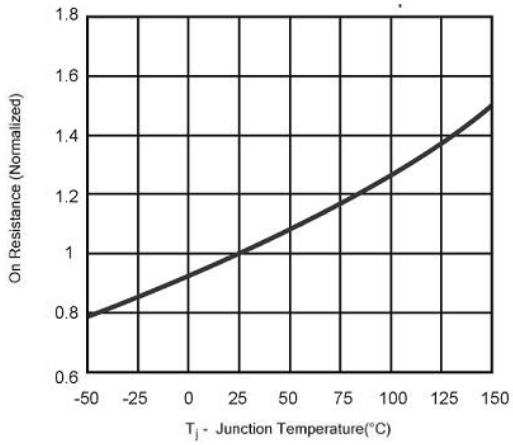


Figure 3: On-Resistance vs. Temperature

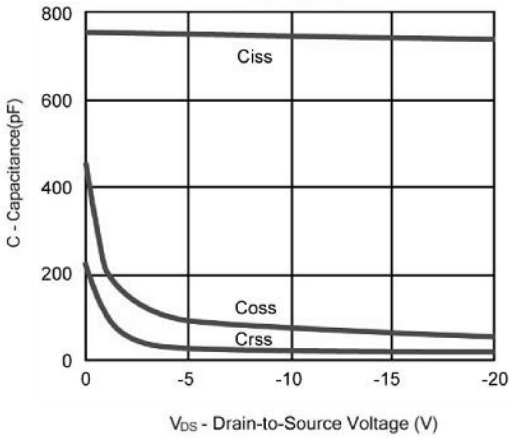


Figure 4: Capacitance vs. Drain-Source Voltage

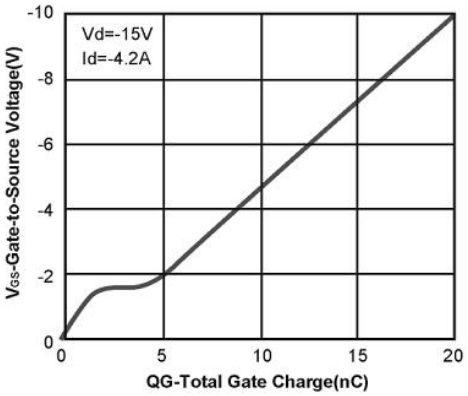


Figure 5: Gate-Charge Characteristics

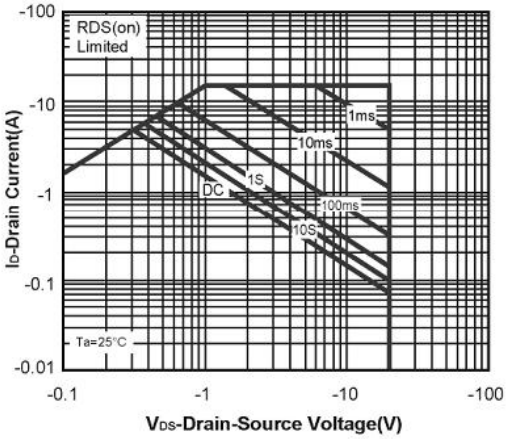
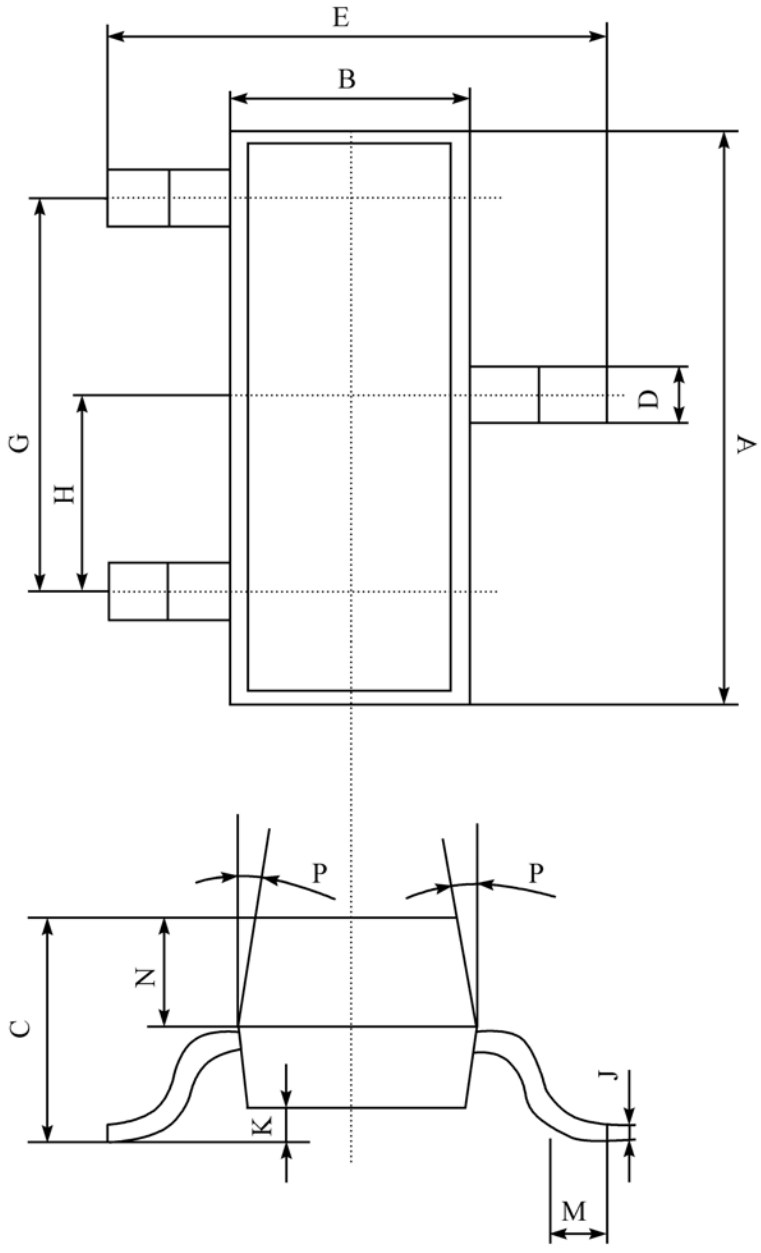


Figure 6: Safe Operating Area

■DIMENSION

(UNIT)：mm



序號	數值及公差
A	2.90±0.10
B	1.30±0.10
C	1.00±0.10
D	0.40±0.10
E	2.40±0.20
G	1.90±0.10
H	0.95±0.05
J	0.13±0.05
K	0.00-0.10
M	≥0.2
N	0.60±0.10
P	7±2°