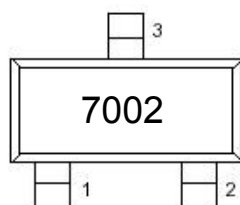


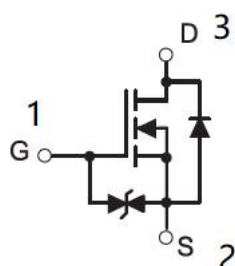
CDL7002-ME

MOSFET

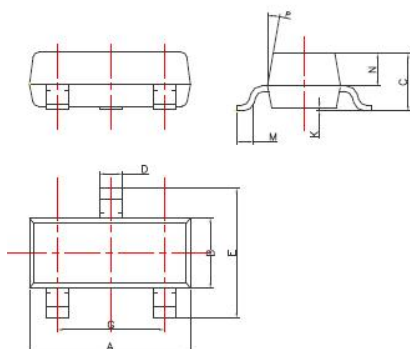
Marking: 7002



Top view

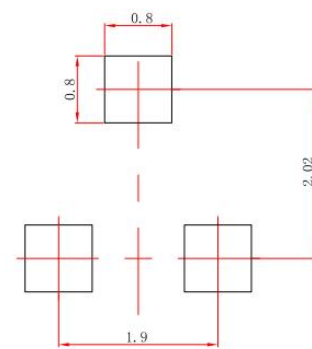


SOT-23 Dimension



DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00-0.10
M	0.20 MIN
N	0.60±0.10
P	7±2°

SOT-23 Suggested Layout



mm(±0.05mm)

MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	60	Vdc
Gate-Source Voltage	V _{GSS}	±20	Vdc
Drain Current—Continuous	I _D	115	mAdc
Peak Drain Current	I _{DM}	800	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board(1) T _A =25°C	PD	200	mW
Total Device Dissipation Alumina Substrate,(2) T _A =25°C	P _D	300	mW
Junction and Storage Temperature	T _J , T _{stg}	150, -55 to +150	°C

1. FR-5=1.0×0.75×0.062in, printed-circuit board.

2. Alumina=0.4×0.3×0.024in, 99.5%alumina

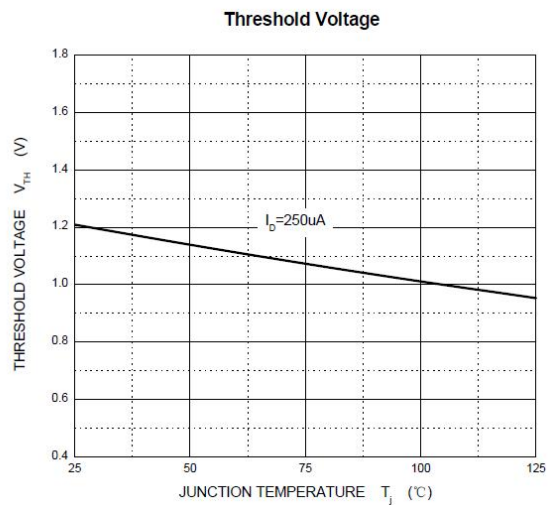
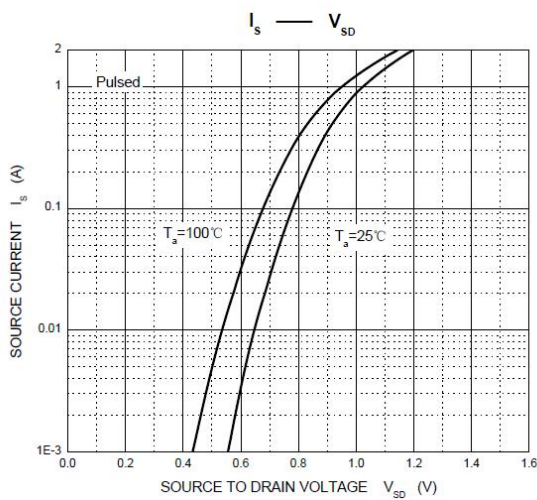
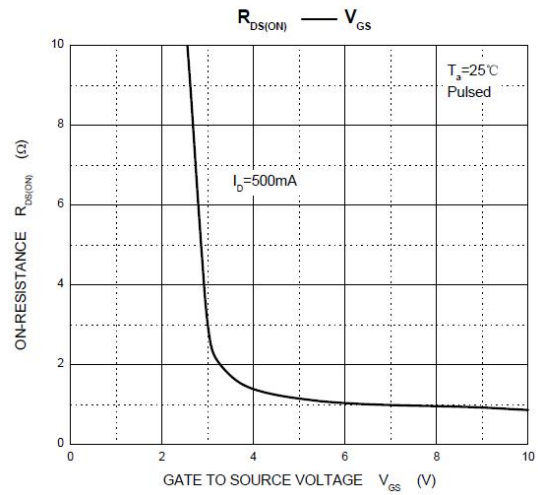
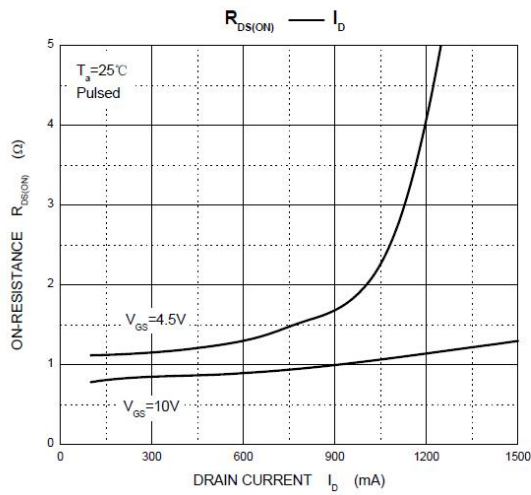
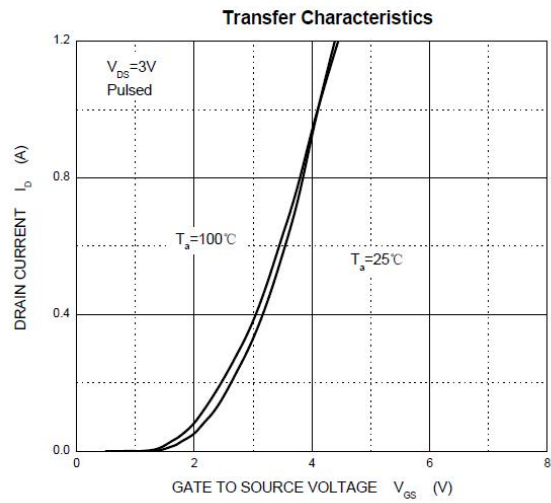
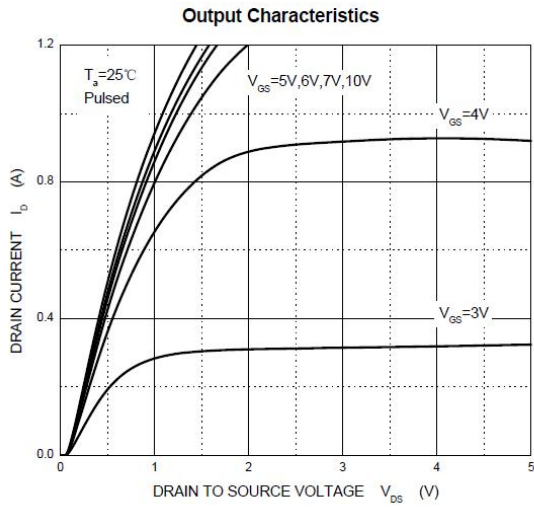
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =10μA	60	70	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V	-	-	1.0	μA
Gate-Body Leakage Current, Forward	I _{GSSF}	V _{GS} =20V, V _{DS} =0V	-	-	10	nA
Gate-Body Leakage Current, Reverse	I _{GSSR}	V _{GS} =-20V, V _{DS} =0V	-	-	-10	uA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	1.35	1.6	1.85	V
On-State Drain Current	I _{D(on)}	V _{DS} ≥2V _{DS(on)} , V _{GS} =10V	500	-	-	mA
Static Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} =10V, I _D =300mA V _{GS} =4.5V, I _D =200mA	-	1.5 2.0	3 4	Ohm
Forward Transconductance	g _{fs}	V _{DS} ≥2V _{DS(on)} , I _D =200mA	80	-	-	mS
Diode Forward On-Voltage	V _{FSD}	V _{GS} =0V, I _S =115mA	-	-	1.2	V
Turn-On Delay Time	t _{d(on)}	V _{DD} =25V, I _D =500mA, R _G =25Ω, R _L =50Ω, V _{gen} =10V	-	-	10	ns
Turn-Off Delay Time	t _{d(off)}		-	-	15	
Input Capacitance	C _{iss}	V _{DS} =25V, V _{GS} =0V, f=1MHz	-	-	40	pF
Output Capacitance	C _{oss}	V _{DS} =25V, V _{GS} =0V, f=1MHz	-	-	30	pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =25V, V _{GS} =0V, f=1MHz	-	-	10	pF
Electro-Static discharge	ESD	HBM	-	-	2000	V

CDL7002-ME

MOSFET

Typical Performance Characteristics



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.