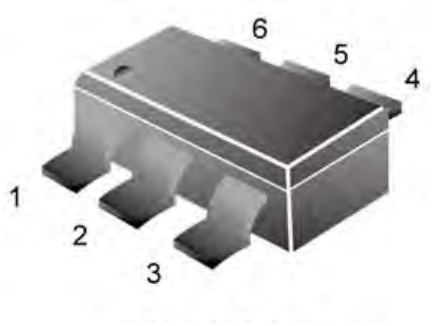
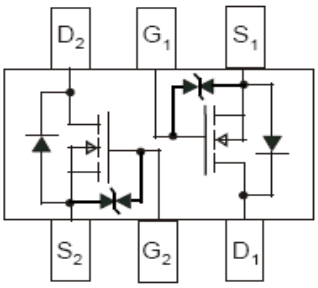
Dual N-Channel MOSFET

DUAL N-CHANNEL ENHANCEMENT

MODE FIELD EFFECT TRANSISTOR



- Low On-Resistance
- Fast Switching Speed
- Low-voltage drive
- Easily designed drive circuits
- ESD Protected: 1000V



Maximum Ratings and electrical characteristic

Ratings at 25°C ambient temperature unless otherwise specified

Symbol	PARAMETER	Typical	Units
V_{DSS}	Drain-Source Voltage	60	V
V_{GSS}	Gate-Source Voltage - Continuous	±20	V
I_D	Drain Current - Continuous	115	mA
	Drain Current - Pulsed*1	800	
I_{DR}	Reverse drain Current - Continuous	115	mA
	Reverse drain Current - Pulsed*1	800	
P_D	Total Power Dissipation*2	225	mW
Tch	Channel temperature	150	°C
T_J , T_{STG}	Operating and Storage Temperature Range	-55 to +150	°C

*1 Pw ≦ 10 μs, Duty cycle ≦ 1 %

*2 When mounted on a 1*0.75*0.062 inch glass epoxy board

Dual N-Channel MOSFET

Maximum ratings and electrical characteristic

Ratings at 25°C ambient temperature unless otherwise specified

Symbol	Ratings	Test Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS} =0V, I_D=10μA	60	-	-	V
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS} =60V, V_{GS} =0V	-	-	1.0	μA
I_{GSS}	Gate-source Leakage	V_{DS} =0V, V_{GS} = ±20V	-	-	±10	μA
ON CHARACTERISTIC						
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=10V, I_D=1mA	1.0	-	2.0	V
$R_{DS(ON)}$	Static Drain-Source On-Resistance	V_{GS} = 10V, I_D=0.5A	-	-	7.5	Ω
		V_{GS} = 5V, I_D=0.05A	-	-	7.5	
G_{FS}	Forward Trans-conductance*	V_{DS}=10V , I_D=0.2A	80	-	-	mS
DYNAMIC CHARACTERISTICS						
C_{ISS}	Input Capacitance	V_{DS} =25V,V_{GS} =0V, F=1.0MHz	-	25	50	pF
C_{OSS}	Output Capacitance		-	10	25	
C_{RSS}	Reverse Transfer Capacitance		-	3.0	5.0	
SWITCHING CHARACTERISTICS						
$TD_{(ON)}$	Turn-On Dealy Time*	V_{DD} =30V, I_D=0.2A, V_{GS} = 10V,RL=150Ω,RG=10Ω	-	12	20	nS
$TD_{(OFF)}$	Turn-Off Delay Time*		-	20	30	

* Pw ≦ 300 μs, Duty cycle ≦ 1%

TYPICAL ELECTRICAL CHARACTERISTICS

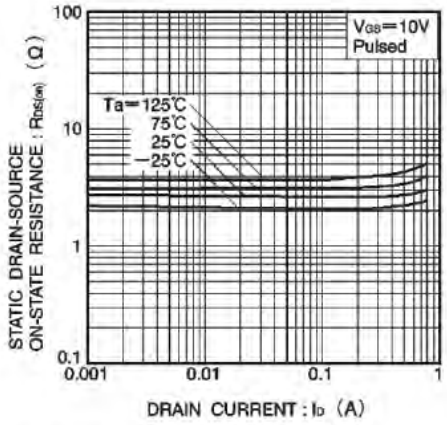


Fig.1 Static drain-source on-state resistance vs. drain current (Ⅰ)

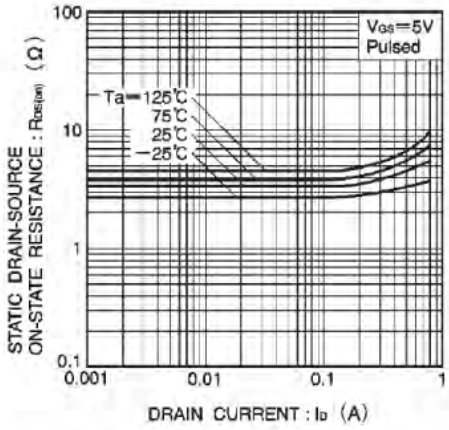


Fig.2 Static drain-source on-state resistance vs. drain current (Ⅱ)

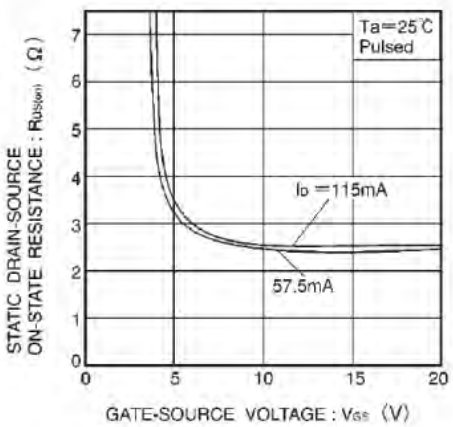


Fig.3 Static drain-source on-state resistance vs. gate-source voltage

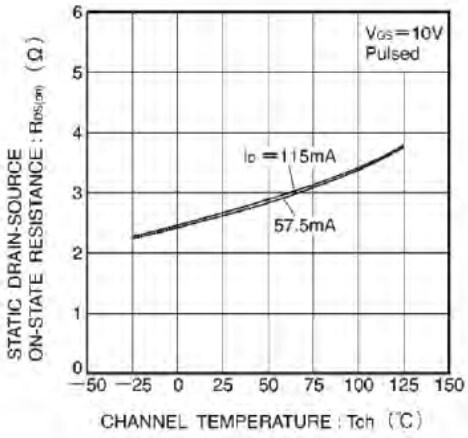


Fig.4 Static drain-source on-state resistance vs. channel temperature

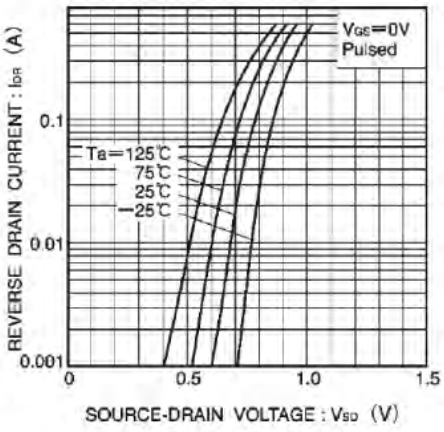


Fig.5 Reverse drain current vs. source-drain voltage (Ⅰ)

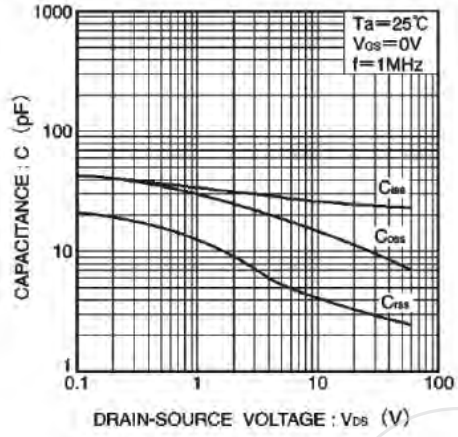
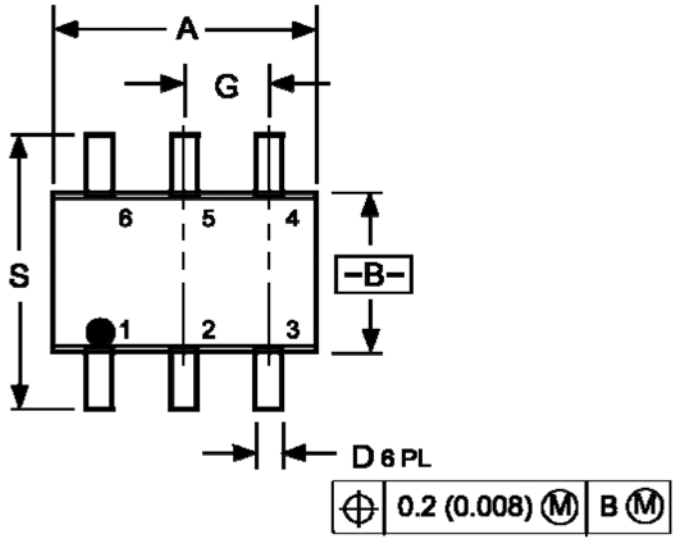
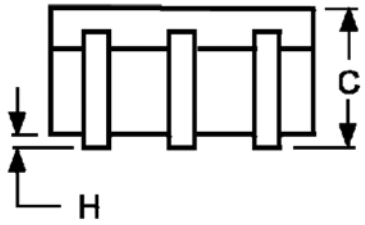
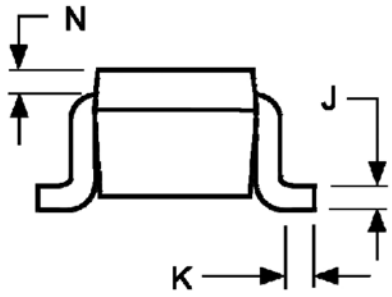


Fig.6 Typical capacitance vs. drain-source voltage







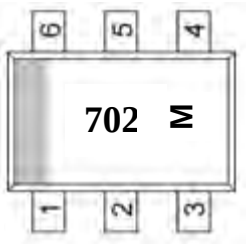
DIM	INCHES		MILLMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20

Dual N-Channel MOSFET

Device name:ME2N7002D1KW-G

Package:SOT-363

Marking Code:



702: Device Marking Code

M: Date code

MONTH CODE

ODD YEARS(2007,2009)

Jan	1
Feb	2
Mar	3
Apr	4
May	5
Jun	6
Jul	7
Aug	8
Sep	9
Oct	T
Nov	V
Dec	C

EVEN YEARS(2006,2008)

Jan	E
Feb	F
Mar	H
Apr	J
May	K
Jun	L
Jul	N
Aug	P
Sep	U
Oct	X
Nov	Y
Dec	Z