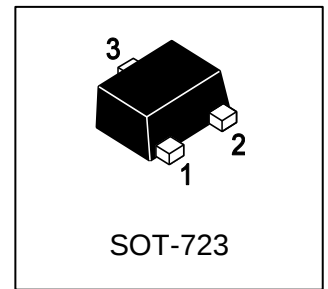


L2N7002M3T5G

115 mA, 60V Small Signal MOSFET

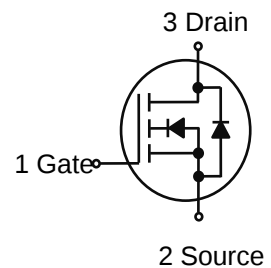
1. FEATURES

- Pb-Free Package is Available.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
L2N7002M3T5G	72	11000/Tape&Reel



3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	VDSS	60	V
Gate-Source Voltage – Continuous	VGS	±20	V
Drain Current – Continuous TC = 25°C(Note 1) – Pulsed (t<10μs)	ID IDM	115 800	mA

4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 2) @ TA = 25°C Derate above 25°C	PD	150 1.2	mW mW/°C
Thermal Resistance,Junction-to-Ambient	RθJA	833	°C/W
Junction and Storage temperature	TJ,Tstg	-55~+150	°C

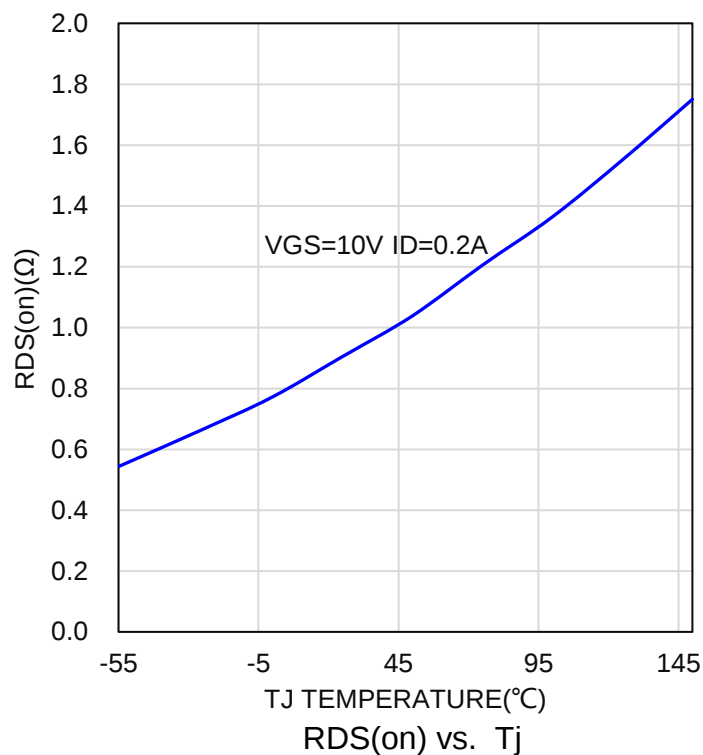
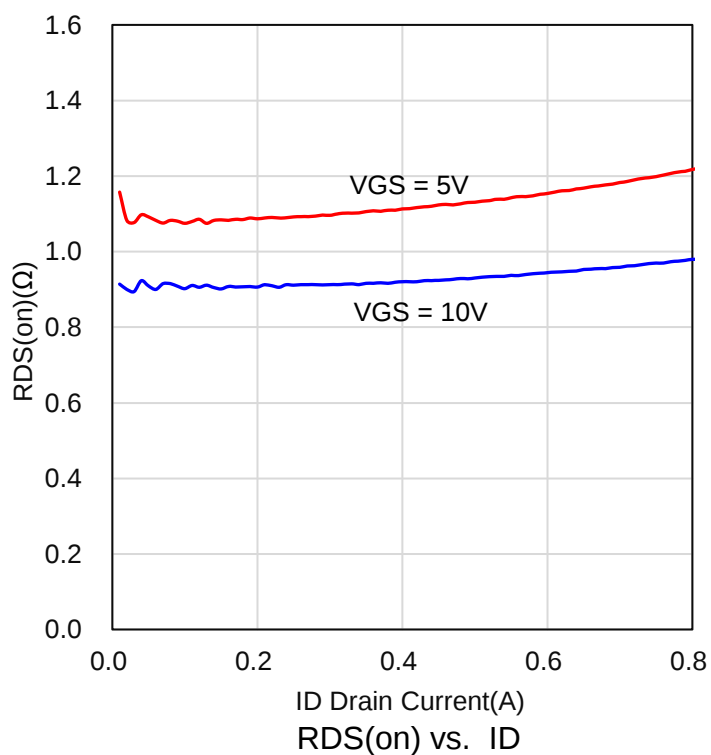
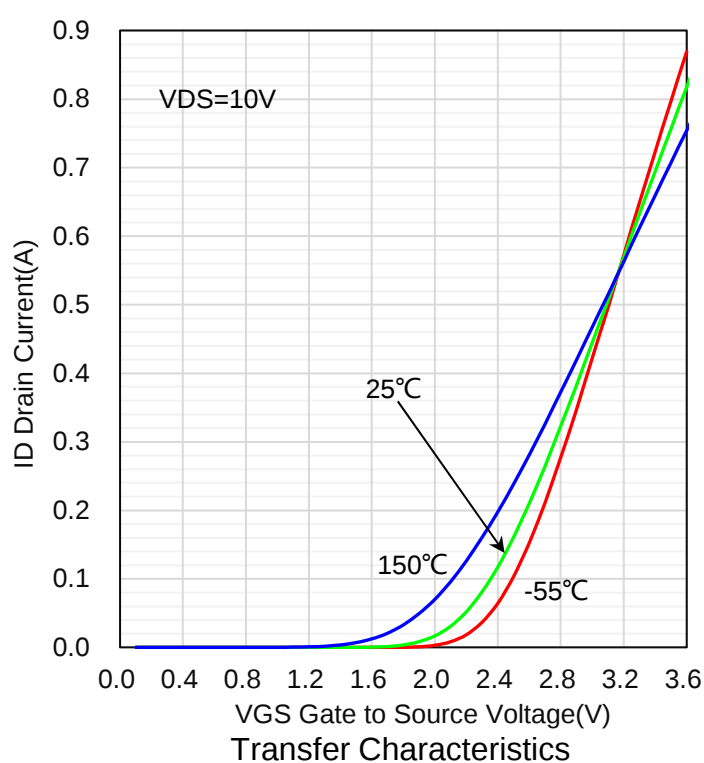
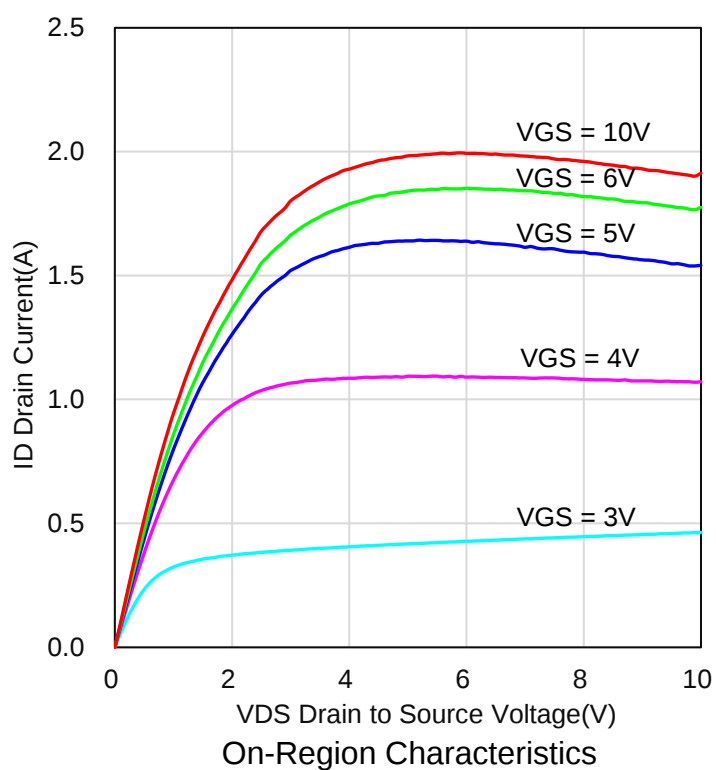
1. The Power Dissipation of the package may result in a lower continuous drain current.
2. FR-5 = 1.0×0.75×0.062 in.

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

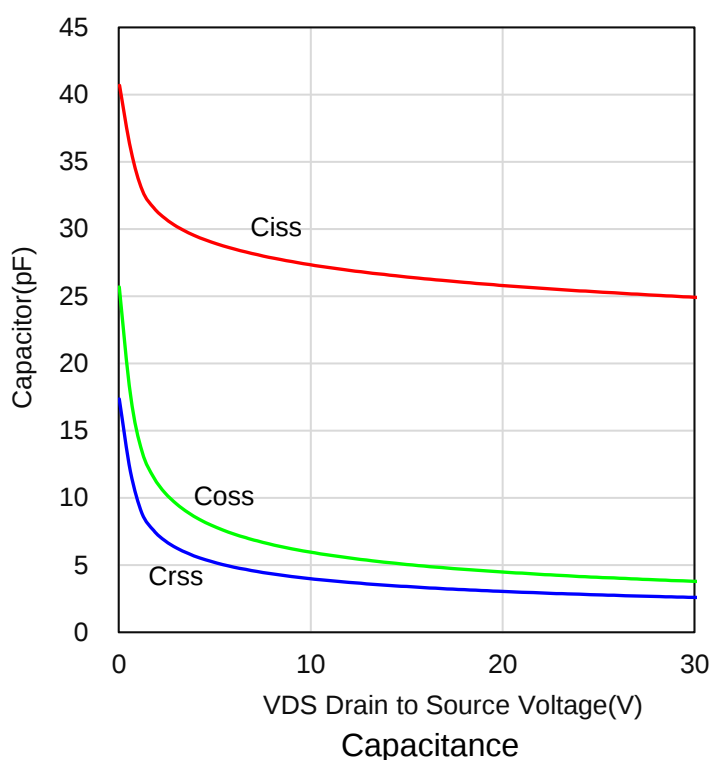
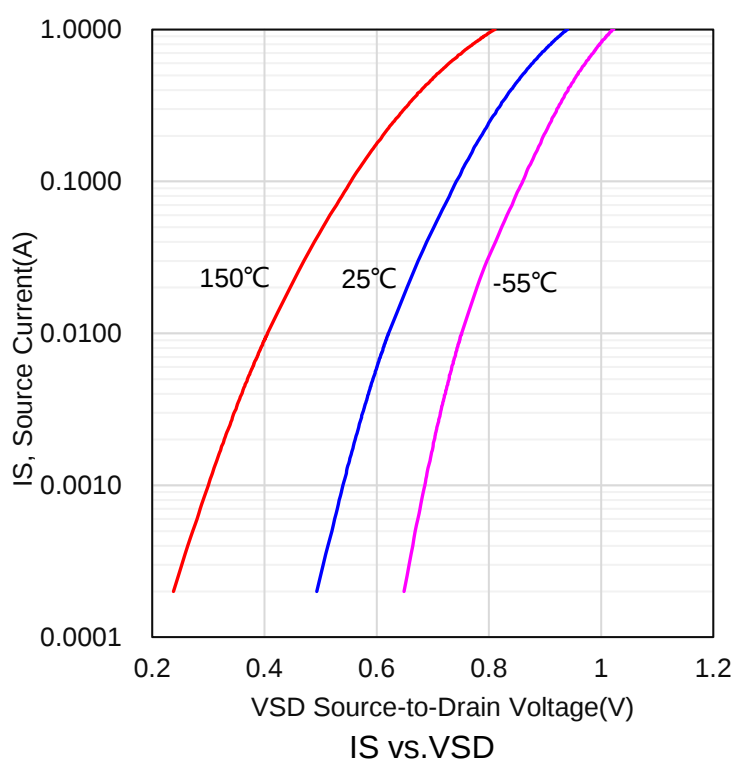
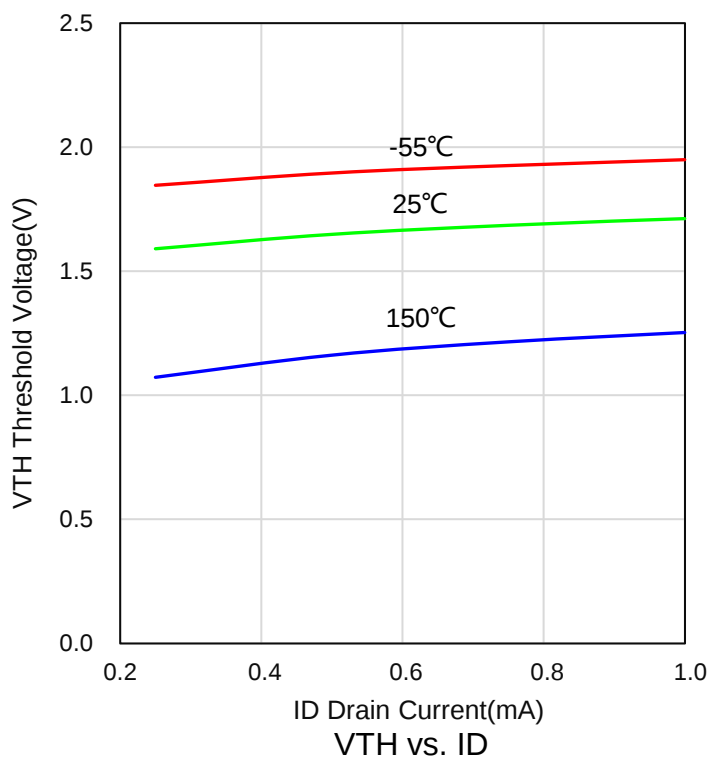
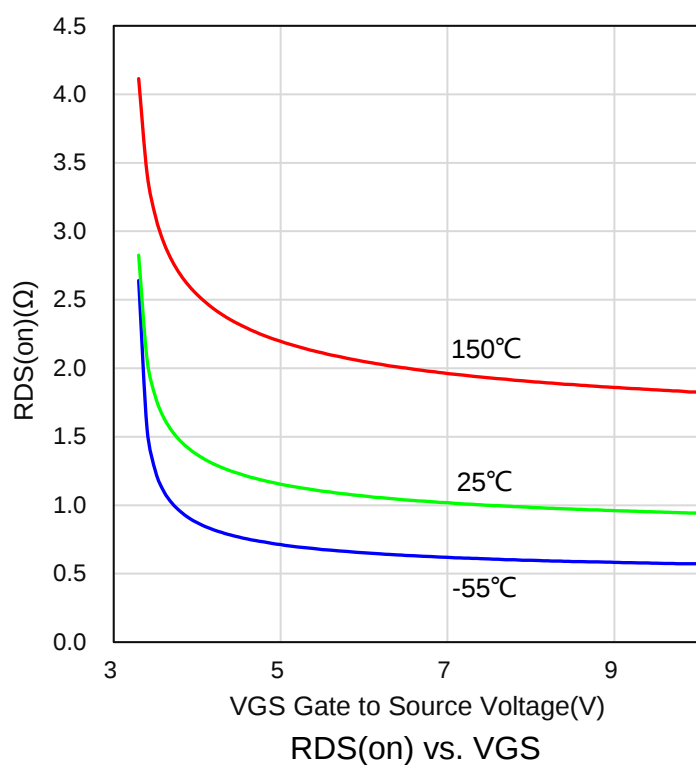
Characteristic		Symbol	Min.	Typ.	Max.	Unit
Drain–Source Breakdown Voltage (VGS = 0, ID = 10μA)		VBRDSS	60	-	-	V
Zero Gate Voltage Drain Current TJ = 25°C (VGS = 0, VDS = 60 V) TJ = 125°C		IDSS	- -	- -	1 500	μA
Gate–Body Leakage Current (VGS = ±20 V,VDS =0V)		IGSS	-	-	±100	nA
Gate Threshold Voltage (VDS = VGS, ID = 250μA)		VGS(th)	1	1.8	2.2	V
Static Drain–Source On–State Voltage (VGS = 10 V,ID = 500 mA) (VGS = 5.0 V,ID = 50 mA)		VDS(on)	- -	- -	3.75 0.375	V
Static Drain–Source On–State Resistance(Note 3) (ID =0.5A, VGS =10V) (ID =0.05A, VGS =5V)		RDS(on)	- -	- -	4 4	Ω
Input Capacitance (VDS = 25 V, VGS = 0, f = 1.0 MHz)		Ciss	-	17	50	pF
Output Capacitance (VDS = 25 V, VGS = 0, f = 1.0 MHz)		Coss	-	10	25	
Reverse Transfer Capacitance (VDS = 25 V, VGS = 0, f = 1.0 MHz)		Crss	-	2.5	5	
Turn-On Delay Time	(VDD = 25 V, ID =500 mA, RG = 25Ω,RL = 50 Ω,VGEN = 10 V)	td(on)	-	7	20	ns
Turn-Off Delay Time		td(off)	-	11	40	
Diode Forward On–Voltage (IS = 115 mA, VGS = 0 V)		VSD	-	-	1.5	V
Source Current Continuous		IS	-	-	115	mA
Source Current Pulsed		ISM	-	-	800	mA

3. Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%.

6. ELECTRICAL CHARACTERISTICS CURVES



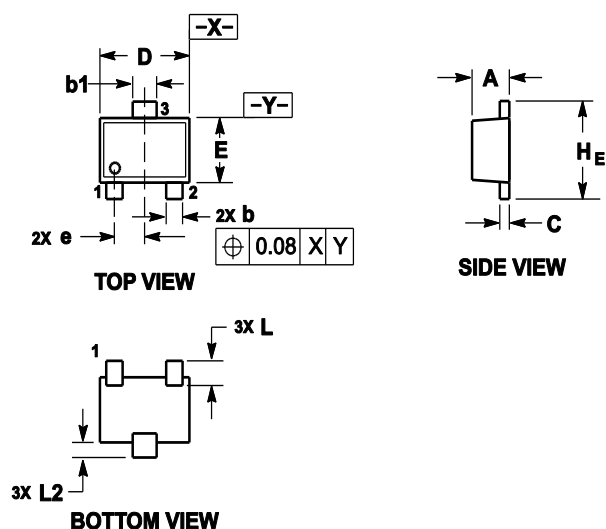
6. ELECTRICAL CHARACTERISTICS CURVES(Con.)



7.OUTLINE AND DIMENSIONS

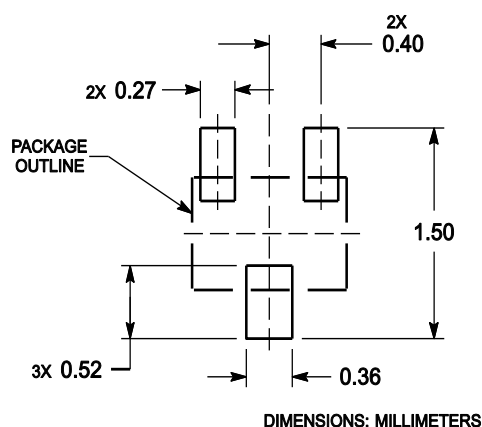
Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.039
b	0.15	0.21	0.27	0.006	0.008	0.011
b1	0.25	0.31	0.37	0.010	0.012	0.015
C	0.07	0.12	0.17	0.003	0.005	0.007
D	1.15	1.20	1.25	0.045	0.047	0.049
E	0.75	0.80	0.85	0.030	0.031	0.033
e	0.40REF			0.016REF		
H _E	1.15	1.20	1.25	0.045	0.047	0.049
L	0.29REF			0.011REF		
L ₂	0.15	0.20	0.25	0.006	0.008	0.010

8.SOLDERING FOOTPRINT



DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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