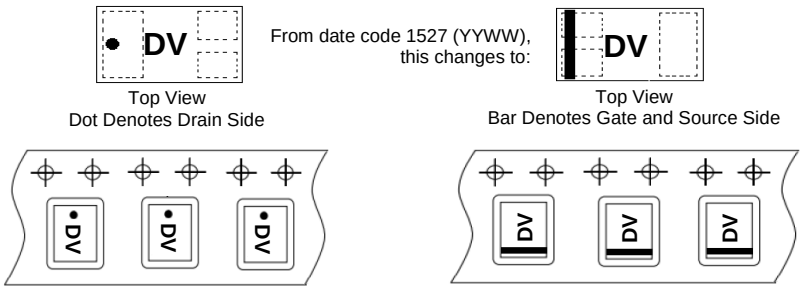
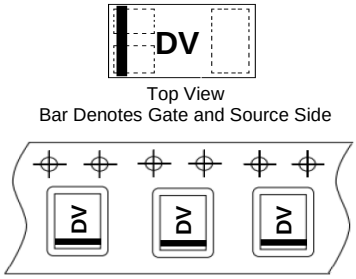
Marking Information

DMN32D2LFB4-7	
DMN32D2LFB4-7B	

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Drain Source Voltage	V_{DSS}	30	V
Gate-Source Voltage	V_{GSS}	±10	V
Drain Current (Note 5)	I_D	300	mA

Thermal Characteristics (@T_A = +25°C, unless otherwise specified.)

Total Power Dissipation (Note 5) @T_A = +25°C	P_D	350	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	357	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Note: 5. Device mounted on FR-4 PCB, pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at http://www.diodes.com.

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 6)							
Drain-Source Breakdown Voltage		BV_{DSS}	30	—	—	V	V_{GS} = 0V, I_D = 10μA
Zero Gate Voltage Drain Current	@ T_C = +25°C	I_{DSS}	—	—	1	μA	V_{DS} = 30V, V_{GS} = 0V
Gate-Body Leakage		I_{GSS}	—	—	±10 ±500	μA nA	V_{GS} = ±10V, V_{DS} = 0V V_{GS} = ±5V, V_{DS} = 0V
ON CHARACTERISTICS (Note 6)							
Gate Threshold Voltage		$V_{GS(th)}$	0.6	—	1.2	V	V_{DS} = V_{GS}, I_D = 250μA
Static Drain-Source On-Resistance		$R_{DS\ (ON)}$	— — —	— — —	2.2 1.5 1.2	Ω	V_{GS} = 1.8V, I_D = 20mA V_{GS} = 2.5V, I_D = 20mA V_{GS} = 4.0V, I_D = 100mA
Forward Transconductance		$\|Y_{fs}\|$	100	—	—	mS	V_{DS} =10V, I_D = 0.1A
Source-Drain Diode Forward Voltage		V_{SD}	0.5	—	1.4	V	V_{GS} = 0V, I_S = 115mA
DYNAMIC CHARACTERISTICS							
Input Capacitance		C_{iss}	—	39	78	pF	V_{DS} = 3V, V_{GS} = 0V f = 1.0MHz
Output Capacitance		C_{oss}	—	10	20	pF	
Reverse Transfer Capacitance		C_{rss}	—	3.6	7.2	pF	
Switching Time	Turn-on Time	t_{on}	—	11	22	nS	V_{DD} = 5V, I_D = 10mA, V_{GS} = 0-5V
	Turn-off Time	t_{off}	—	51	102	nS	

Note: 6. Short duration pulse test used to minimize self-heating effect.

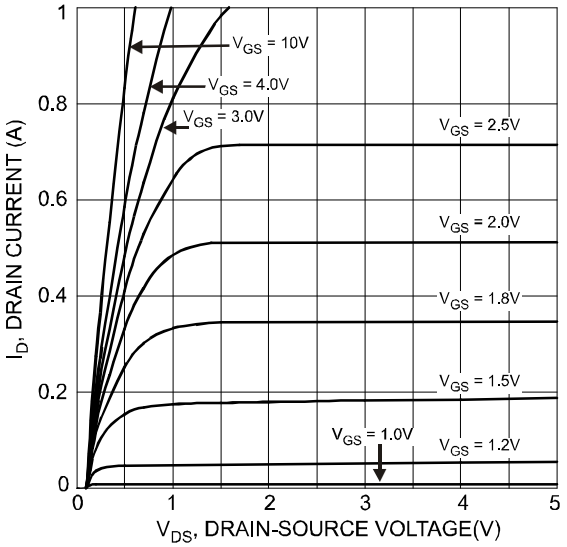


Fig. 1 Typical Output Characteristics

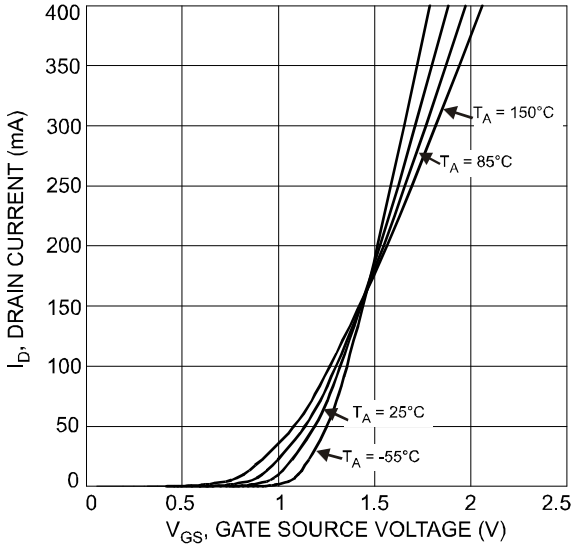


Fig. 2 Typical Transfer Characteristics

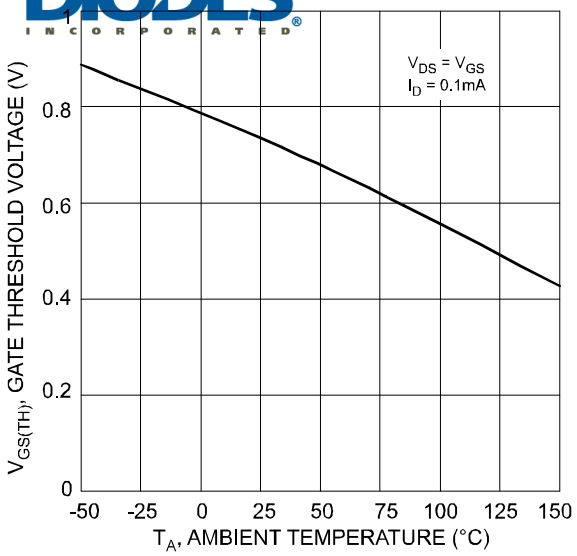


Fig. 3 Gate Threshold Voltage vs. Ambient Temperature

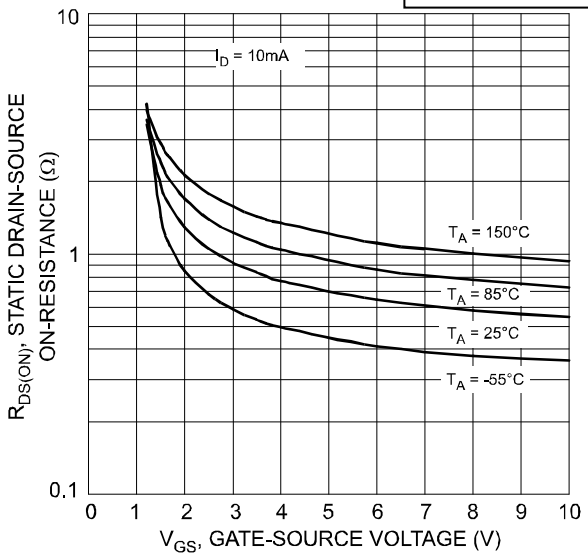


Fig. 4 Static Drain-Source On-Resistance vs. Gate-Source Voltage

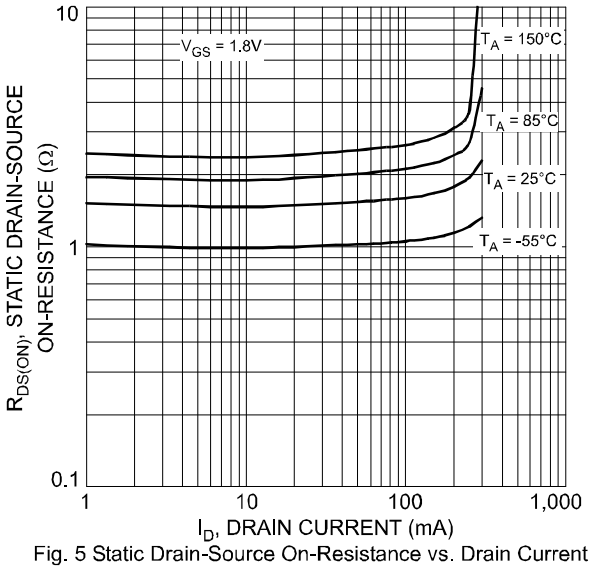


Fig. 5 Static Drain-Source On-Resistance vs. Drain Current

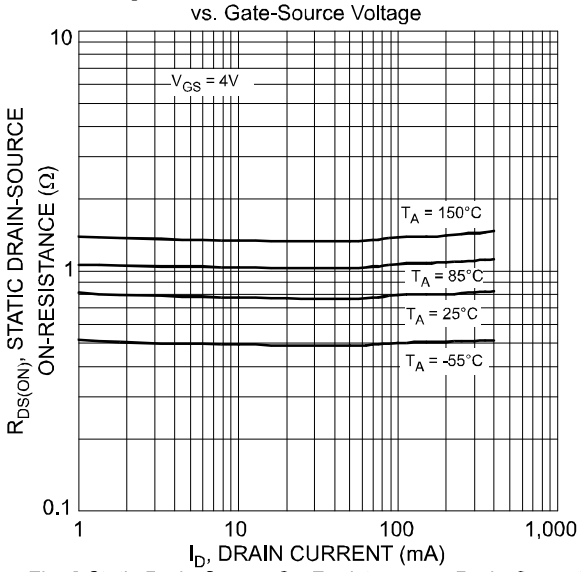


Fig. 6 Static Drain-Source On-Resistance vs. Drain Current

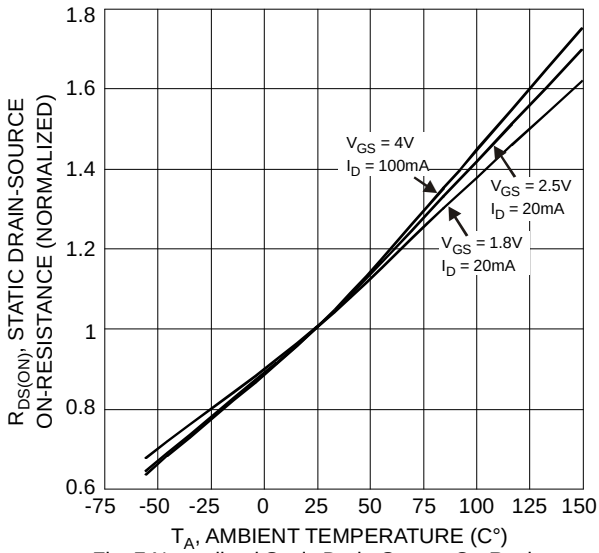


Fig. 7 Normalized Static Drain-Source On-Resistance vs. Ambient Temperature

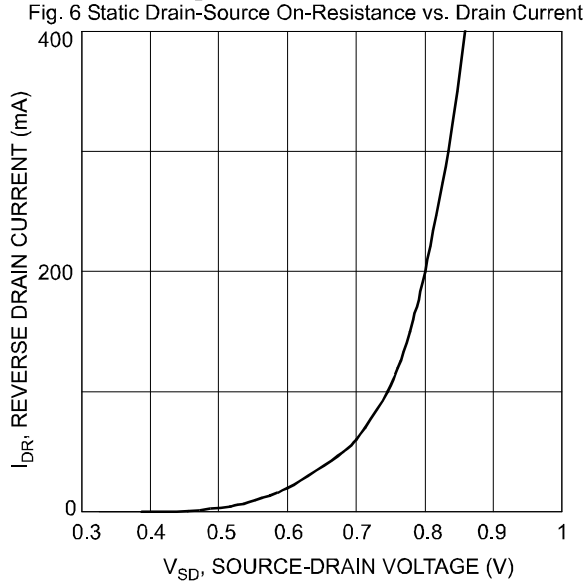


Fig. 8 Reverse Drain Current vs. Source-Drain Voltage

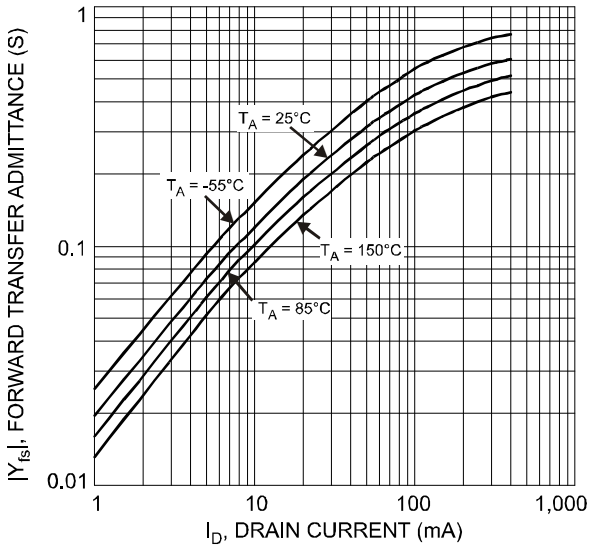


Fig. 9 Forward Transfer Admittance vs. Drain Current

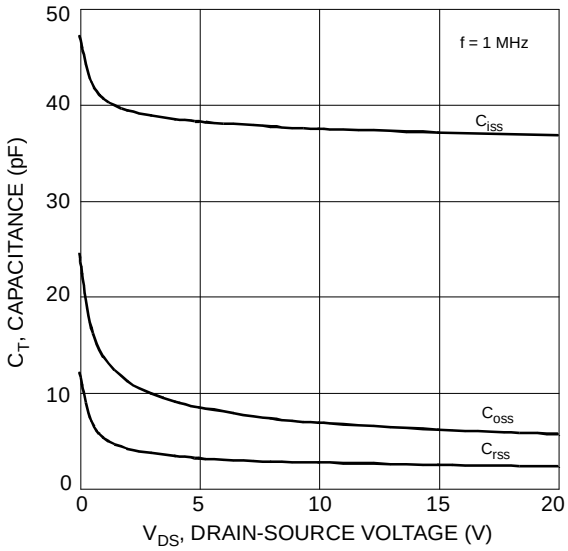
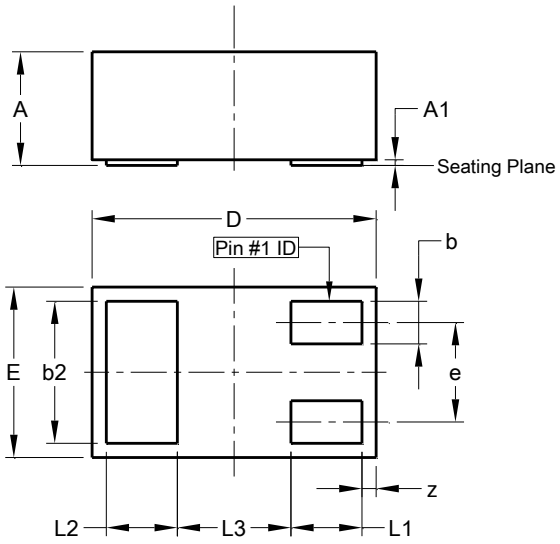


Fig. 10 Typical Capacitance

Package Outline Dimensions

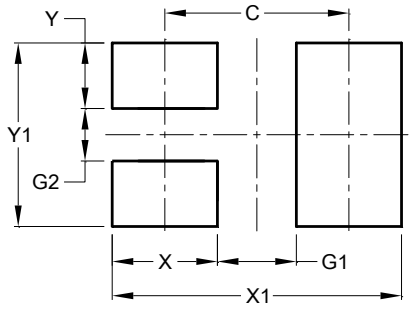
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



X2-DFN1006-3			
Dim	**Min**	**Max**	**Typ**
A	-	0.40	-
A1	0.00	0.05	0.03
b	0.10	0.20	0.15
b2	0.45	0.55	0.50
D	0.95	1.05	1.00
E	0.55	0.65	0.60
e	-	-	0.35
L1	0.20	0.30	0.25
L2	0.20	0.30	0.25
L3	-	-	0.40
z	0.02	0.08	0.05
All Dimensions in mm			

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
C	0.70
G1	0.30
G2	0.20
X	0.40
X1	1.10
Y	0.25
Y1	0.70

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