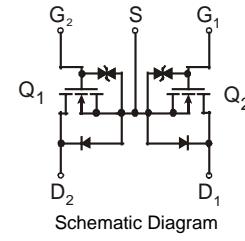
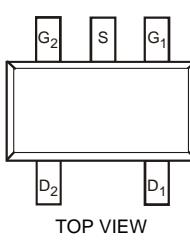


Features

- Common Source Dual N-Channel MOSFET
- Low On-Resistance
- Very Low Gate Threshold Voltage, 1.2V max
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage
- Small Surface Mount Package
- ESD Protected Gate
- Lead Free By Design/RoHS Compliant (Note 2)**
- "Green" Device (Note 3)**
- Qualified to AEC-Q 101 Standards for High Reliability



SOT-353



Schematic Diagram

Maximum Ratings Q₁, Q₂ @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 1)	I _D	400	mA

Thermal Characteristics Q₁, Q₂ @T_A = 25°C unless otherwise specified

Total Power Dissipation (Note 1)	P _D	280	mW
Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}	446	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150	°C

Electrical Characteristics Q₁, Q₂ @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 4)						
Drain-Source Breakdown Voltage	BV _{DSS}	30	—	—	V	V _{GS} = 0V, I _D = 250µA
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 ±1	µA	V _{GS} = ±10V, V _{DS} = 0V V _{GS} = ±5V, V _{DS} = 0V
ON CHARACTERISTICS (Note 4)						
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	—	pF	V _{DS} = 3V, V _{GS} = 0V f = 1.0MHz
Output Capacitance	C _{oss}	—	10	—	pF	
Reverse Transfer Capacitance	C _{rss}	—	3.6	—	pF	
Switching Time	Turn-on Time	t _{on}	—	11	—	nS
	Turn-off Time	t _{off}	—	51	—	nS
V _{DD} = 5V, I _D = 10 mA, V _{GS} = 0-5V						

Notes:

- Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
- No purposefully added lead.
- Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
- Short duration pulse test used to minimize self-heating effect.

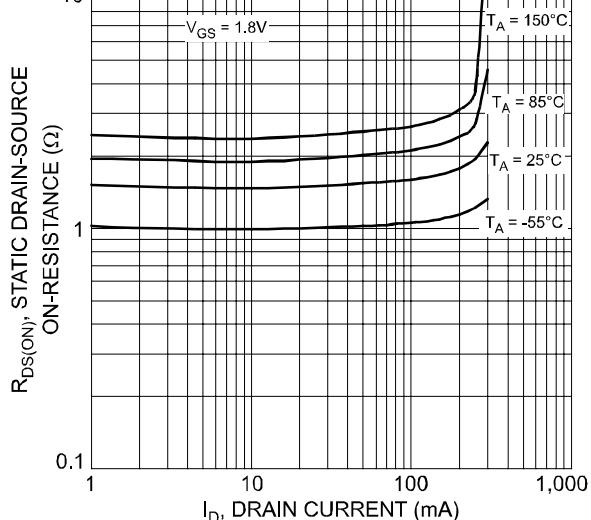
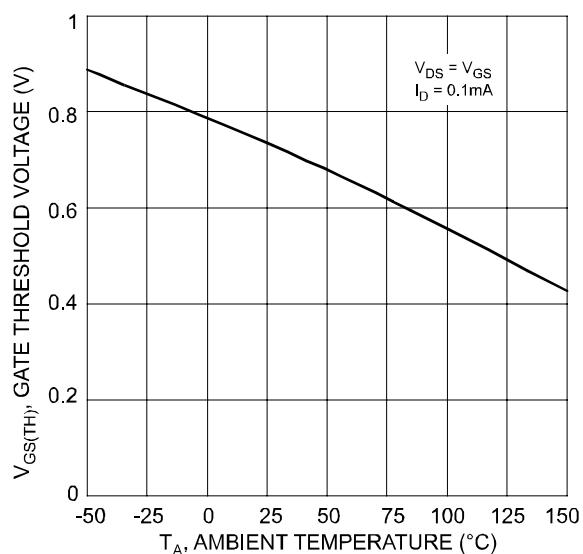
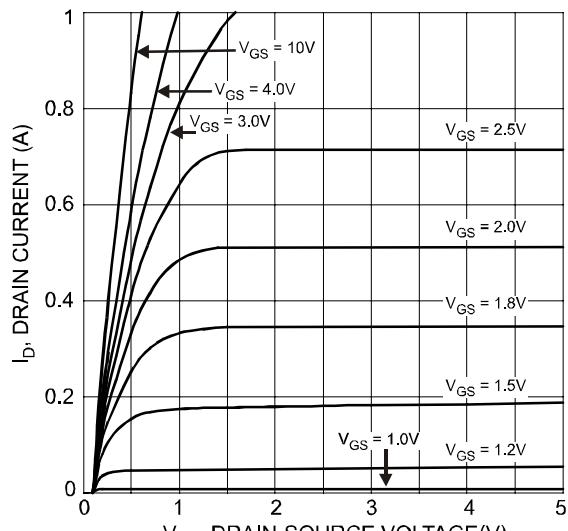
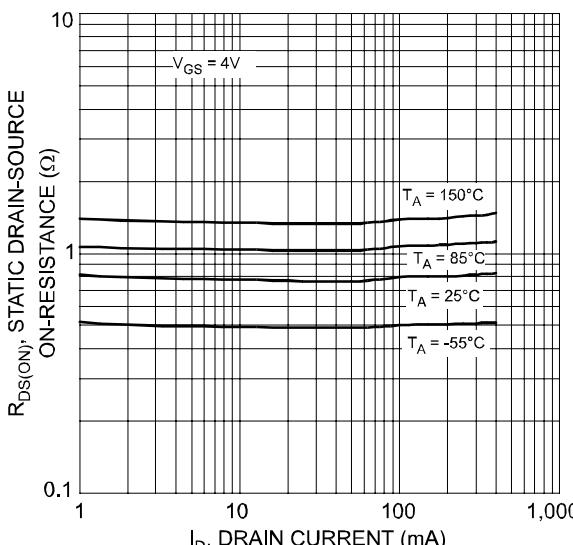
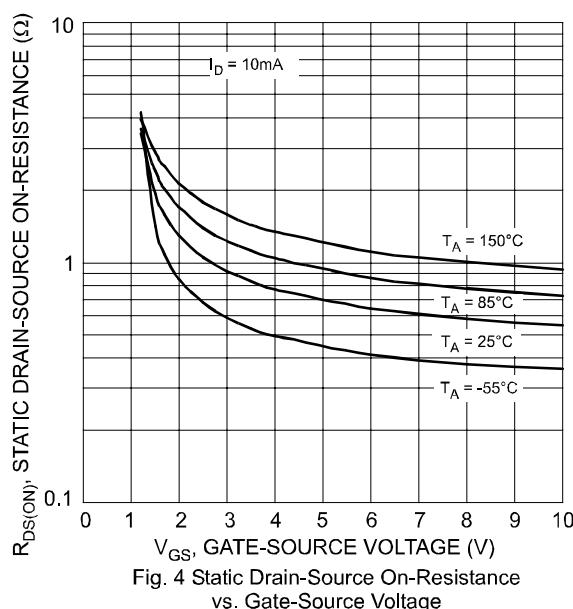
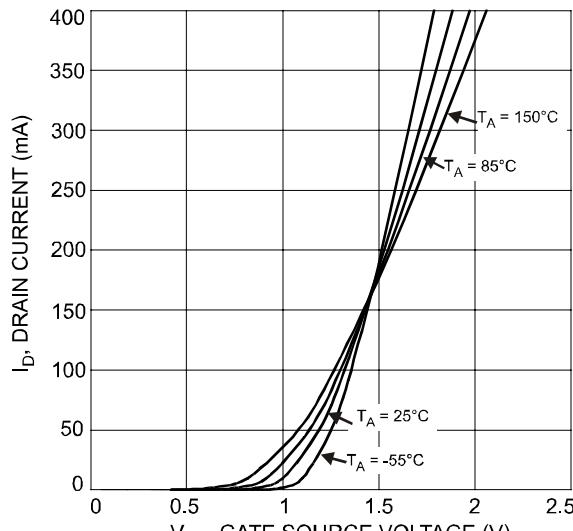


Fig. 5 Static Drain-Source On-Resistance vs. Drain Current



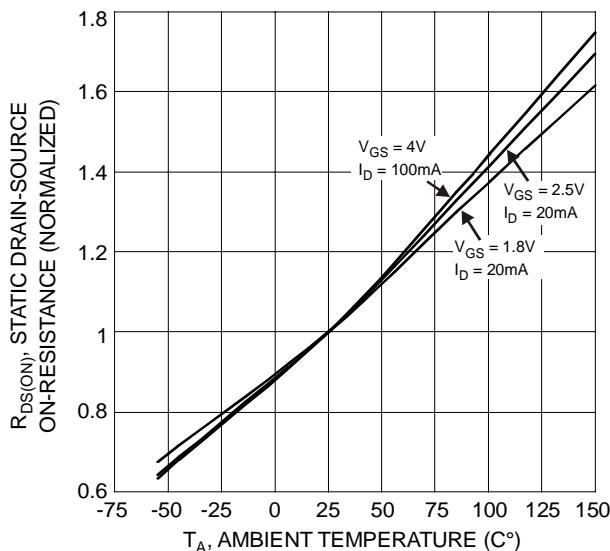


Fig. 7 Normalized Static Drain-Source On-Resistance vs. Ambient Temperature

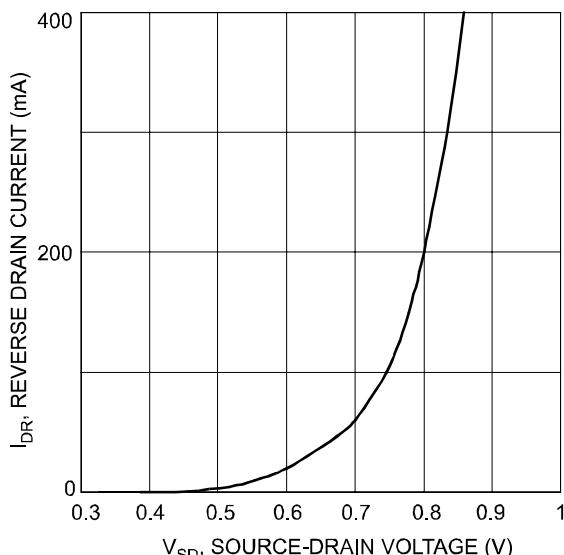


Fig. 8 Reverse Drain Current vs. Source-Drain Voltage

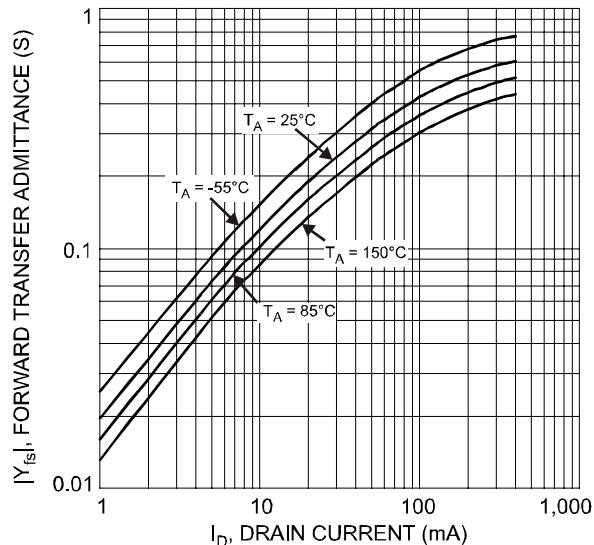


Fig. 9 Forward Transfer Admittance vs. Drain Current

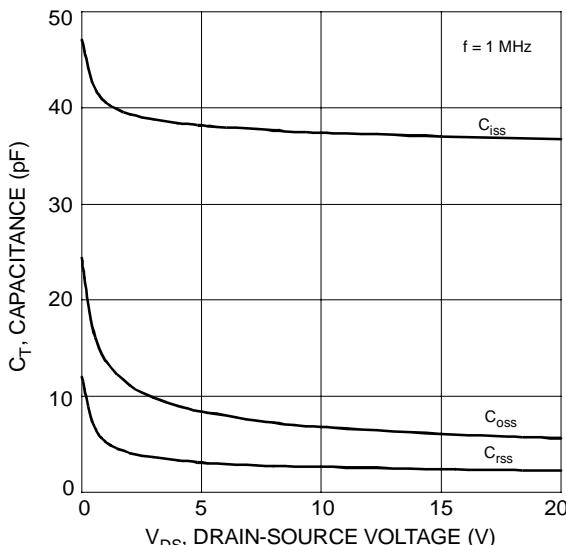


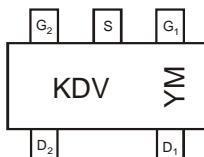
Fig. 10 Typical Capacitance

Ordering Information (Note 5)

Part Number	Case	Packaging
DMN32D2LDF-7	SOT-353	3000/Tape & Reel

Notes: 5. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information (Note 6)



KDV = Product Type Marking Code (See Note 6)

YM = Date Code Marking

Y = Year ex: U = 2007

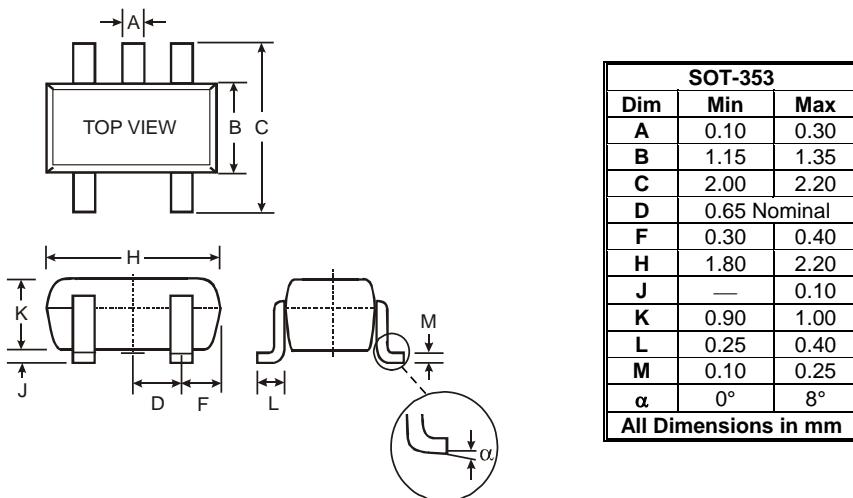
M = Month ex: 9 = September

Notes: 6. Package is non-polarized. Parts may be on reel in orientation illustrated, 180° rotated, or mixed (both ways).

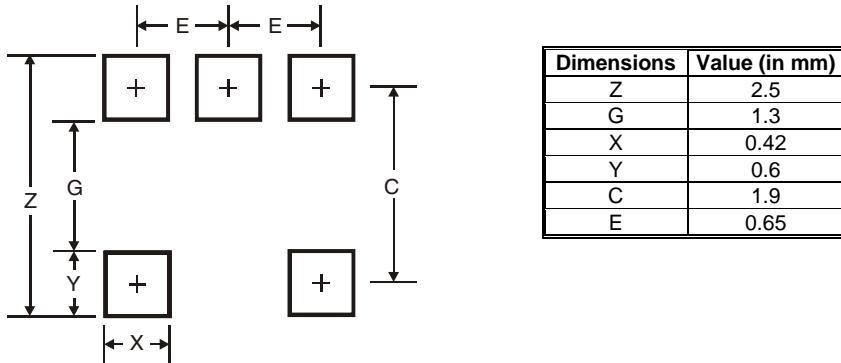
Date Code Key

Year	2007	2008	2009	2010	2011	2012						
Code	U	V	W	X	Y	Z						
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Package Outline Dimensions



Suggested Pad Layout



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