

N-Channel Depletion-Mode Vertical DMOS FET in Single and Dual Options

Features

- Very Low Gate Threshold Voltage
- Designed to be Source-driven
- Low Switching Losses
- Low Effective Output Capacitance
- Designed for Inductive Loads

Applications

- Medical Ultrasound Beamforming
- Ultrasonic Array-focusing Transmitter
- Piezoelectric Transducer Waveform Drivers
- High-speed Arbitrary Waveform Generator
- Normally-on Switches
- Solid-state Relays
- Constant Current Sources
- Power Supply Circuits

General Description

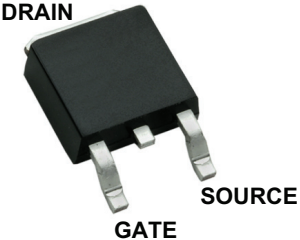
The DN2625 is a low-threshold Depletion-mode (normally-on) transistor that utilizes an advanced vertical DMOS structure and a well-proven silicon gate manufacturing process. This combination produces a device with the power handling capabilities of bipolar transistors as well as the high input impedance and positive temperature coefficient inherent in Metal-Oxide Semiconductor (MOS) devices. Characteristic of all MOS structures, this device is free from thermal runaway and thermally induced secondary breakdown.

Vertical DMOS Field-Effect Transistors (FETs) are ideally suited to a wide range of switching and amplifying applications where high breakdown voltage, high input impedance, low input capacitance and fast switching speeds are desired.

The DN2625DK6-G contains two MOSFETs in an 8-lead, dual-pad DFN package. The DN2625 contains a single MOSFET in a TO-252 D-PAK package.

Package Types

TO-252 D-PAK
(Top view)



8-lead DFN (Dual Pad)
(Top view)

S1	1	D1	8	D1
G1	2		7	D1
S2	3	D2	6	D2
G2	4		5	D2

See [Table 3-1](#) and [Table 3-2](#) for pin information.

DN2625

1.0 ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings†

Drain-to-source Voltage	BV_{DSX}
Drain-to-gate Voltage	BV_{DGX}
Gate-to-source Voltage	$\pm 20V$
Operating Ambient Temperature, T_A	$-55^{\circ}C$ to $150^{\circ}C$
Storage Temperature, T_S	$-55^{\circ}C$ to $150^{\circ}C$
Soldering Temperature (Note 1)	$300^{\circ}C$

† **Notice:** Stresses above those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. This is a stress rating only, and functional operation of the device at those or any other conditions above those indicated in the operational sections of this specification is not intended. Exposure to maximum rating conditions for extended periods may affect device reliability.

Note 1: Distance of 1.6 mm from case for 10 seconds

DC ELECTRICAL CHARACTERISTICS

Electrical Specifications: Unless otherwise noted, $T_A = 25^{\circ}C$. (Note 1)						
Parameter	Sym.	Min.	Typ.	Max.	Unit	Conditions
Drain-to-source Breakdown Voltage	BV_{DSX}	250	—	—	V	$V_{GS} = -2.5V, I_D = 50 \mu A$
Drain-to-gate Breakdown Voltage	BV_{DGX}	250	—	—	V	$V_{GS} = -2.5V, I_D = 50 \mu A$
Gate-to-source Off Voltage	$V_{GS(OFF)}$	-1.5	—	-2.1	V	$V_{DS} = 15V, I_D = 100 \mu A$
Change in $V_{GS(OFF)}$ with Temperature	$\Delta V_{GS(OFF)}$	—	—	-4.5	mV/ $^{\circ}C$	$V_{DS} = 15V, I_D = 100 \mu A$ (Note 2)
Gate Body Leakage Current	I_{GSS}	—	—	100	nA	$V_{GS} = \pm 20V, V_{DS} = 0V$
Drain-to-source Leakage Current	$I_{D(OFF)}$	—	—	1	μA	$V_{DS} = 250V, V_{GS} = -5V$
		—	—	200		$V_{DS} = 250V, V_{GS} = -5V, T_A = 125^{\circ}C$ (Note 2)
Saturated Drain-to-source Current	I_{DSS}	1.1	—	—	A	$V_{GS} = 0V, V_{DS} = 15V$
Pulsed Drain-to-source Current	$I_{DS(PULSE)}$	3.1	3.3	—	A	$V_{GS} = 0.9V, V_{DS} = 15V$ (With duty cycle of 1%)
Static Drain-to-source On-resistance	$R_{DS(ON)}$	—	—	3.5	Ω	$V_{GS} = 0V, I_D = 1A$
Change in $R_{DS(ON)}$ with Temperature	$\Delta R_{DS(ON)}$	—	—	1.1	%/ $^{\circ}C$	$V_{GS} = -0V, I_D = 200 mA$ (Note 2)

Note 1: Unless otherwise stated, all DC parameters are 100% tested at $+25^{\circ}C$. Pulse test: 300 μs pulse, 2% duty cycle.

2: Specification is obtained by characterization and is not 100% tested.

AC ELECTRICAL CHARACTERISTICS

Electrical Specifications: Unless otherwise noted, $T_A = 25^\circ\text{C}$. (Note 2)						
Parameter	Sym.	Min.	Typ.	Max.	Unit	Conditions
Forward Transconductance	G_{FS}	100	—	—	mmh0	$V_{DS} = 10\text{V}$, $I_D = 150\text{ mA}$
Input Capacitance	C_{ISS}	—	800	1000	pF	$V_{GS} = -2.5\text{V}$, $V_{DS} = 25\text{V}$, $f = 1\text{ MHz}$
Common Source Output Capacitance	C_{OSS}	—	70	210	pF	
Reverse Transfer Capacitance	C_{RSS}	—	18	70	pF	
Turn-on Delay Time	$t_{d(ON)}$	—	—	10	ns	$V_{DD} = 25\text{V}$, $I_D = 150\text{ mA}$, $R_{GEN} = 3\Omega$, $V_{GS} = 0\text{V to } -10\text{V}$
Rise Time	t_r	—	—	20	ns	
Turn-off Delay Time	$t_{d(OFF)}$	—	—	10	ns	
Fall Time	t_f	—	—	20	ns	
Total Gate Charge	Q_G	—	—	7.04	nC	$I_D = 3.5\text{A}$, $V_{DS} = 100\text{V}$, $V_{GS} = 1.5\text{V}$
Gate-to-source Charge	Q_{GS}	—	—	0.783	nC	
Gate-to-drain Charge	Q_{GD}	—	—	3.73	nC	
DIODE PARAMETER						
Diode Forward Voltage Drop	V_{SD}	—	—	1.8	V	$V_{GS} = -2.5\text{V}$, $I_{SD} = 150\text{ mA}$ (Note 1)

Note 1: Unless otherwise stated, all DC parameters are 100% tested at $+25^\circ\text{C}$. Pulse test: 300 μs pulse, 2% duty cycle.

2: Specification is obtained by characterization and is not 100% tested.

TEMPERATURE SPECIFICATIONS

Electrical Specifications: Unless otherwise specified, for all specifications $T_A = T_J = +25^\circ\text{C}$.						
Parameter	Sym.	Min.	Typ.	Max.	Unit	Conditions
TEMPERATURE RANGE						
Operating Ambient Temperature	T_A	-55	—	150	$^\circ\text{C}$	
Storage Temperature	T_S	-55	—	150	$^\circ\text{C}$	
Soldering Temperature	—	—	—	300	$^\circ\text{C}$	Note 1
PACKAGE THERMAL RESISTANCE						
TO-252 D-PAK	θ_{JA}	—	81	—	$^\circ\text{C/W}$	Note 2
8-lead DFN (Dual Pad)	θ_{JA}	—	29	—	$^\circ\text{C/W}$	Note 3

Note 1: Distance of 1.6 mm from case for 10 seconds

2: Four-layer, 1-oz, 3 x 4-inch PCB with 20 via for drain pad

3: Four-layer, 1-oz, 3 x 4-inch PCB with 12 via for drain pad

THERMAL CHARACTERISTICS

Package	$I_D^{(1)}$ (Continuous) (A)	I_D (Pulsed) (A)	$I_{DR}^{(1)}$ (A)	I_{DRM} (A)
TO-252 D-PAK	1.1	3.3	1.1	3.3
8-lead DFN (Dual Pad)	1.1	3.3	1.1	3.3

Note 1: I_D (Continuous) is limited by maximum T_J .

2.0 TYPICAL PERFORMANCE CURVES

Note: The graphs and tables provided following this note are a statistical summary based on a limited number of samples and are provided for informational purposes only. The performance characteristics listed herein are not tested or guaranteed. In some graphs or tables, the data presented may be outside the specified operating range (e.g. outside specified power supply range) and therefore outside the warranted range.

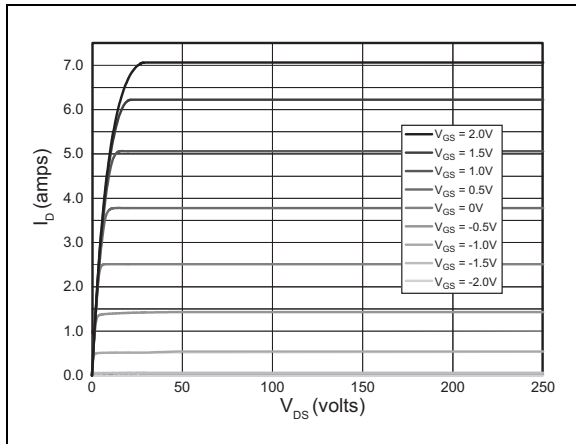


FIGURE 2-1: Output Characteristics.

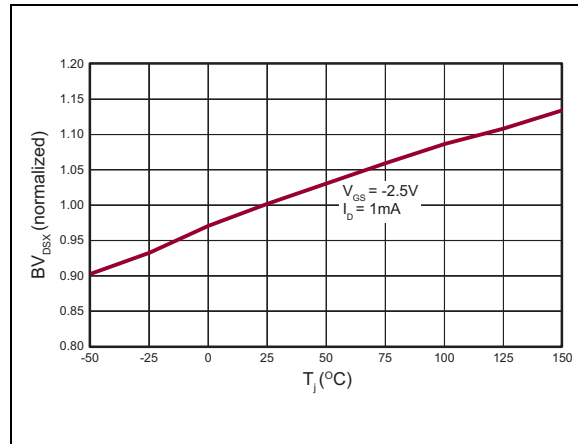


FIGURE 2-4: BV_{DSX} Variation with Temperature.

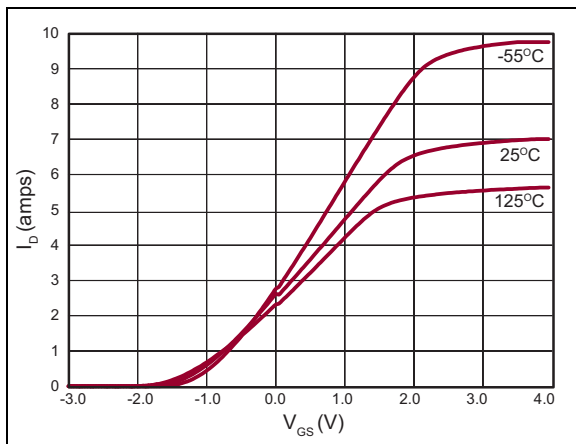


FIGURE 2-2: Transfer Characteristics.

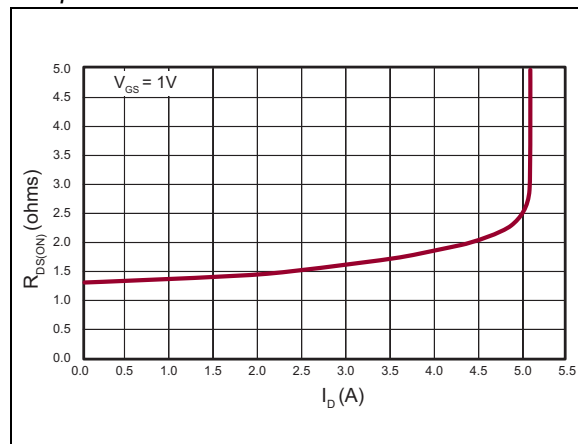


FIGURE 2-5: On-resistance vs. Drain Current.

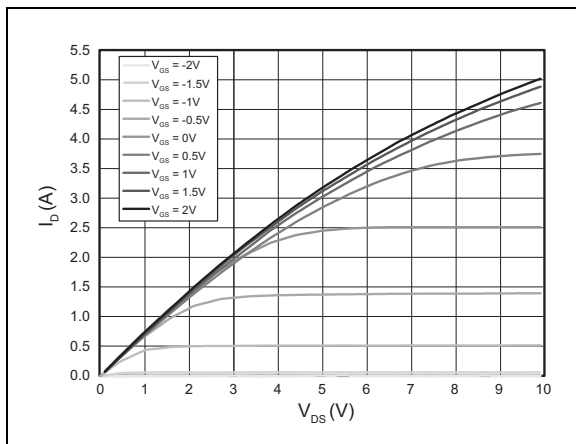


FIGURE 2-3: Saturation Characteristics.

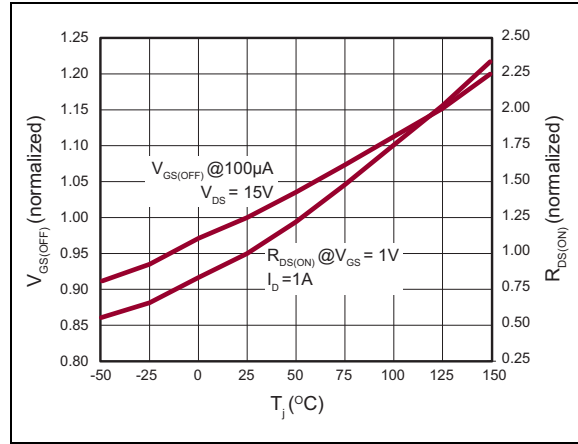


FIGURE 2-6: $V_{GS(OFF)}$ and $R_{DS(ON)}$ Variation with Temperature.

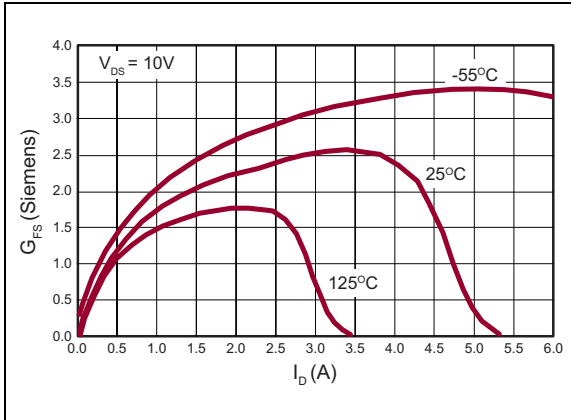


FIGURE 2-7: Transconductance vs. Drain Current.

DN2625

3.0 PIN DESCRIPTION

The details on the pins of TO-252 D-PAK and 8-lead DFN (dual pad) are listed in [Table 3-1](#) and [Table 3-2](#). Refer to [Package Types](#) for the location of pins.

TABLE 3-1: TO-252 D-PAK PIN FUNCTION TABLE

Pin Number	Pin Name	Description
1	Gate	Gate
2	Drain	Drain
3	Source	Source
4	Drain	Drain

TABLE 3-2: 8-LEAD DFN (DUAL PAD) PIN FUNCTION TABLE

Pin Number	Pin Name	Description
1	S1	Device 1 source
2	G1	Device 1 gate
3	S2	Device 2 source
4	G2	Device 2 gate
5	D2	Device 2 drain
6	D2	Device 2 drain
7	D1	Device 1 drain
8	D1	Device 1 drain

4.0 FUNCTIONAL DESCRIPTION

Figure 4-1 shows the switching waveforms and test circuit for DN2625.

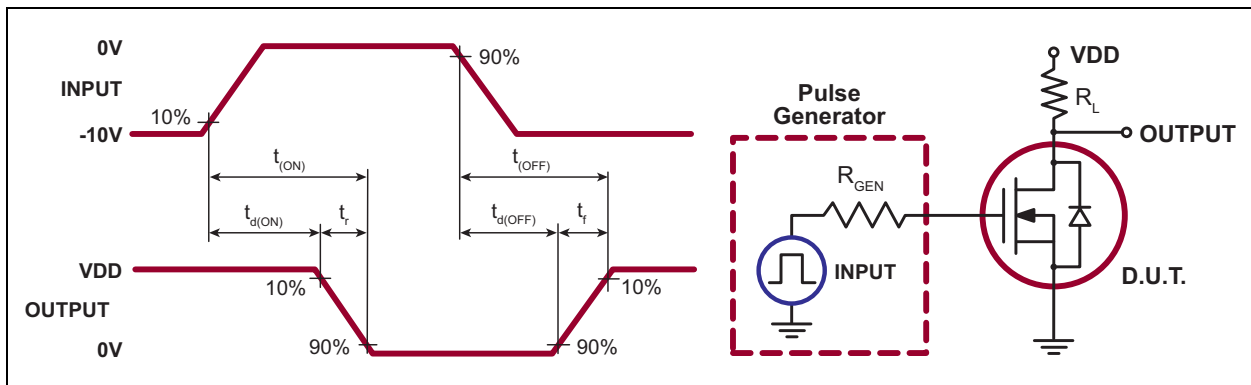


FIGURE 4-1: Switching Waveforms and Test Circuit.

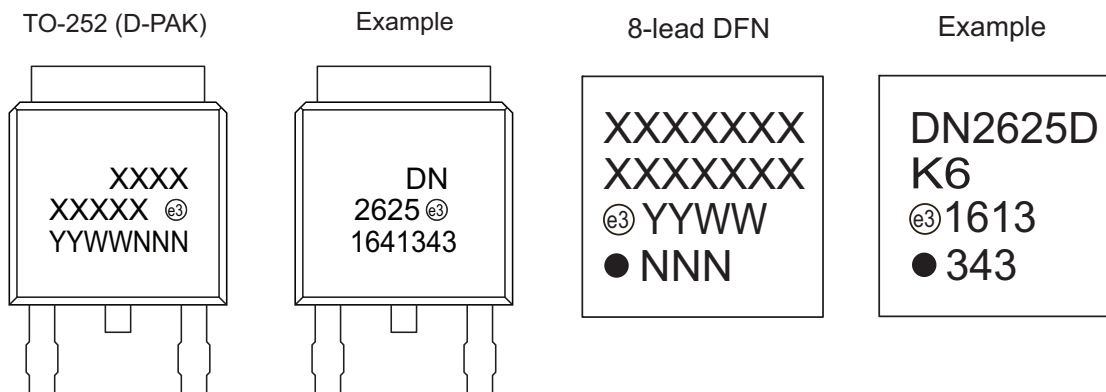
PRODUCT SUMMARY

BV_{DSX}/BV_{DGX} (V)	$V_{GS(OFF)}$ (Maximum) (V)	I_{DS} (Pulsed) ($V_{GS} = 0.9V$) (Minimum) (A)
250	-2.1	3.3

DN2625

5.0 PACKAGING INFORMATION

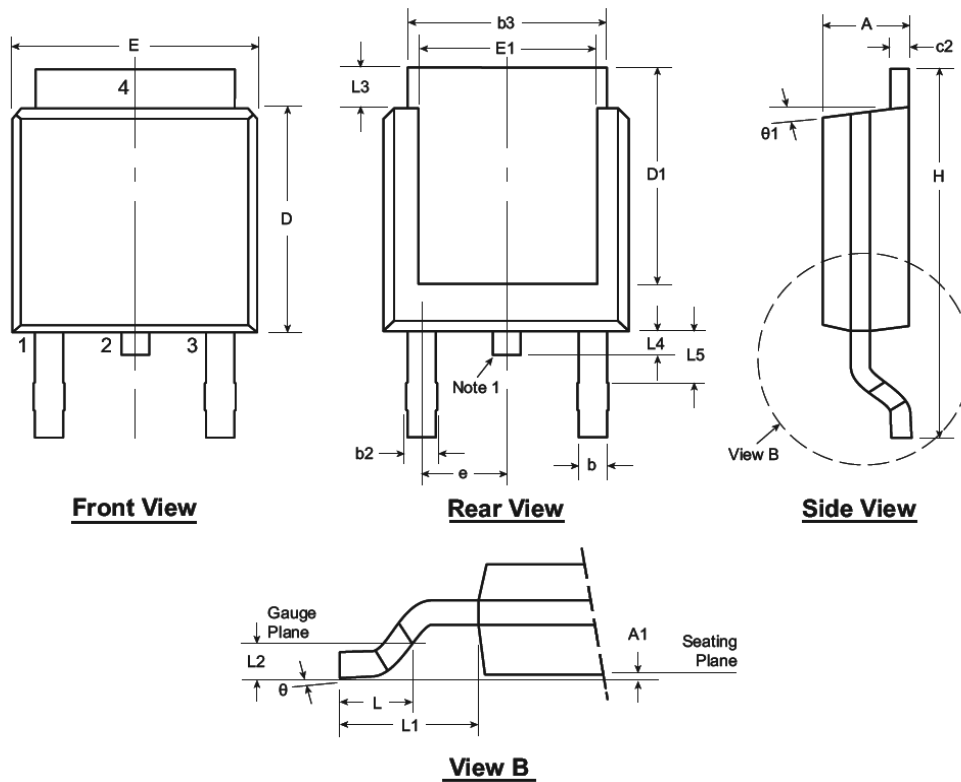
5.1 Package Marking Information



Legend:	XX...X	Product Code or Customer-specific information
	Y	Year code (last digit of calendar year)
	YY	Year code (last 2 digits of calendar year)
	WW	Week code (week of January 1 is week '01')
	NNN	Alphanumeric traceability code
	(e3)	Pb-free JEDEC® designator for Matte Tin (Sn)
	*	This package is Pb-free. The Pb-free JEDEC designator (e3) can be found on the outer packaging for this package.

Note: In the event the full Microchip part number cannot be marked on one line, it will be carried over to the next line, thus limiting the number of available characters for product code or customer-specific information. Package may or not include the corporate logo.

3-Lead TO-252 (D-PAK) Package Outline (K4)



Note: For the most current package drawings, see the Microchip Packaging Specification at www.microchip.com/packaging.

Note:

1. Although 4 terminal locations are shown, only 3 are functional. Lead number 2 was removed.

Symbol	A	A1	b	b2	b3	c2	D	D1	E	E1	e	H	L	L1	L2	L3	L4	L5	θ	θ1
Dimension (inches)	MIN	.086	.000*	.025	.030	.195	.018	.235	.205	.250	.170	.370	.055	.108 REF	.020 BSC	.035	.025*	.035†	0°	0°
	NOM	-	-	-	-	-	-	.240	-	-	.090 BSC	-	.060	-	-	-	-	-	-	-
	MAX	.094	.005	.035	.045	.215	.035	.245	.217*	.265	.200*	.410	.070	-	-	.050	.040	.060	10°	15°

JEDEC Registration TO-252, Variation AA, Issue E, June 2004.

* This dimension is not specified in the JEDEC drawing.

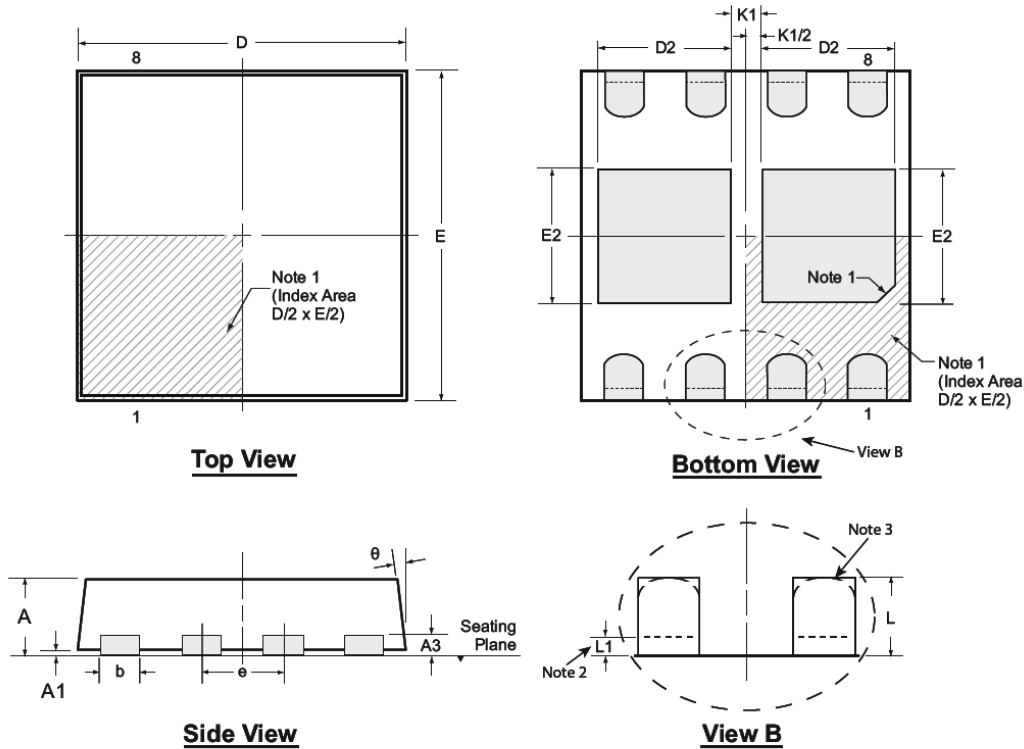
† This dimension differs from the JEDEC drawing.

Drawings not to scale.

DN2625

8-Lead DFN Package Outline (K6)

5.00x5.00mm body, 0.90mm height (max), 1.27mm pitch (dual pad)



Note: For the most current package drawings, see the Microchip Packaging Specification at www.microchip.com/packaging.

Notes:

1. A Pin 1 identifier must be located in the index area indicated. The Pin 1 identifier can be: a molded mark/identifier, an embedded metal marker, or a printed indicator.
2. Depending on the method of manufacturing, a maximum of 0.15mm pullback (L1) may be present.
3. The inner tip of the lead may be either rounded or square.

Symbol	A	A1	A3	b	D	D2	E	E2	e	K1	L	L1	θ	
Dimension (mm)	MIN	0.80	0.00	0.20 REF	0.35	4.90	1.93	4.90	1.90	1.27 BSC	0.40 REF	0.40	0.00	0°
	NOM	0.85	-		0.40	5.00	2.03	5.00	2.00			0.50	-	-
	MAX	0.90	0.05		0.45	5.10	2.13	5.10	2.10			0.60	0.15	14°

Drawings not to scale

APPENDIX A: REVISION HISTORY

Revision A (December 2016)

- Converted Supertex Document DSFP-DN2625 to Microchip DS20005537B
- Removed obsolete package, 14-lead QFN
- Changed the TO-252 D-PAK packaging quantity from 1000/Bag to 2000/Reel
- Revised the Features section

Revision B (May 2017)

- Corrected the 8L DFN Package Outline dimensions by changing it from 4 mm x 4 mm body/1 mm height/1 mm pitch to 5 mm x 5 mm body/0.9 mm height/1.27 mm pitch
- Made minor text changes throughout the document

DN2625

PRODUCT IDENTIFICATION SYSTEM

To order or obtain information, e.g., on pricing or delivery, refer to the factory or the listed sales office.

<u>PART NO.</u>	<u>XX</u>	-	<u>X</u>	-	<u>X</u>
Device	Package Options		Environmental		Media Type
Devices:	DN2625	=	N-Channel Depletion-Mode Vertical DMOS FET (Single Option)		
	DN2625D	=	N-Channel Depletion-Mode Vertical DMOS FET (Dual Option)		
Packages:	K4	=	TO-252 D-PAK		
	K6	=	8-lead DFN		
Environmental:	G	=	Lead (Pb)-free/RoHS-compliant Package		
Media Types:	(blank)	=	2000/Reel for a K4 Package		
		=	490/Tray for a K6 Package		

Examples:

a) DN2625K4-G: N-Channel Depletion-Mode Vertical DMOS FET (Single Option), TO-252 D-PAK Package, 2000/Reel

b) DN2625DK6-G: N-Channel Depletion-Mode Vertical DMOS FET (Dual Option), 8-lead DFN Package, 490/Tray

Note the following details of the code protection feature on Microchip devices:

- Microchip products meet the specification contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is one of the most secure families of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the Microchip products in a manner outside the operating specifications contained in Microchip's Data Sheets. Most likely, the person doing so is engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as “unbreakable.”

Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our products. Attempts to break Microchip's code protection feature may be a violation of the Digital Millennium Copyright Act. If such acts allow unauthorized access to your software or other copyrighted work, you may have a right to sue for relief under that Act.

Information contained in this publication regarding device applications and the like is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION, INCLUDING BUT NOT LIMITED TO ITS CONDITION, QUALITY, PERFORMANCE, MERCHANTABILITY OR FITNESS FOR PURPOSE. Microchip disclaims all liability arising from this information and its use. Use of Microchip devices in life support and/or safety applications is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless Microchip from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights unless otherwise stated.

Microchip received ISO/TS-16949:2009 certification for its worldwide headquarters, design and wafer fabrication facilities in Chandler and Tempe, Arizona; Gresham, Oregon and design centers in California and India. The Company's quality system processes and procedures are for its PIC® MCUs and dsPIC® DSCs, KEELOQ® code hopping devices, Serial EEPROMs, microperipherals, nonvolatile memory and analog products. In addition, Microchip's quality system for the design and manufacture of development systems is ISO 9001:2000 certified.

**QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
= ISO/TS 16949 =**

Trademarks

The Microchip name and logo, the Microchip logo, AnyRate, AVR, AVR logo, AVR Freaks, BeaconThings, BitCloud, CryptoMemory, CryptoRF, dsPIC, FlashFlex, flexPWR, Helder, JukeBlox, KEELOQ, KEELOQ logo, Klear, LANCheck, LINK MD, maXStylus, maXTouch, MediaLB, megaAVR, MOST, MOST logo, MPLAB, OptoLyzer, PIC, picoPower, PICSTART, PIC32 logo, Prochip Designer, QTouch, RightTouch, SAM-BA, SpyNIC, SST, SST Logo, SuperFlash, tinyAVR, UNI/O, and XMEGA are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

ClockWorks, The Embedded Control Solutions Company, EtherSynch, Hyper Speed Control, HyperLight Load, IntelliMOS, mTouch, Precision Edge, and Quiet-Wire are registered trademarks of Microchip Technology Incorporated in the U.S.A.

Adjacent Key Suppression, AKS, Analog-for-the-Digital Age, Any Capacitor, AnyIn, AnyOut, BodyCom, chipKIT, chipKIT logo, CodeGuard, CryptoAuthentication, CryptoCompanion, CryptoController, dsPICDEM, dsPICDEM.net, Dynamic Average Matching, DAM, ECAN, EtherGREEN, In-Circuit Serial Programming, ICSP, Inter-Chip Connectivity, JitterBlocker, KlearNet, KlearNet logo, Mindi, MiWi, motorBench, MPASM, MPF, MPLAB Certified logo, MPLIB, MPLINK, MultiTRAK, NetDetach, Omniscient Code Generation, PICDEM, PICDEM.net, PICKit, PICTail, PureSilicon, QMatrix, RightTouch logo, REAL ICE, Ripple Blocker, SAM-ICE, Serial Quad I/O, SMART-I.S., SQI, SuperSwitcher, SuperSwitcher II, Total Endurance, TSHARC, USBCheck, VariSense, ViewSpan, WiperLock, Wireless DNA, and ZENA are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

SQTP is a service mark of Microchip Technology Incorporated in the U.S.A.

Silicon Storage Technology is a registered trademark of Microchip Technology Inc. in other countries.

GestIC is a registered trademark of Microchip Technology Germany II GmbH & Co. KG, a subsidiary of Microchip Technology Inc., in other countries.

All other trademarks mentioned herein are property of their respective companies.

© 2017, Microchip Technology Incorporated, All Rights Reserved.
ISBN: 978-1-5224-1759-0



MICROCHIP

Worldwide Sales and Service

AMERICAS

Corporate Office

2355 West Chandler Blvd.
Chandler, AZ 85224-6199

Tel: 480-792-7200

Fax: 480-792-7277

Technical Support:

[http://www.microchip.com/
support](http://www.microchip.com/support)

Web Address:

www.microchip.com

Atlanta

Duluth, GA

Tel: 678-957-9614

Fax: 678-957-1455

Austin, TX

Tel: 512-257-3370

Boston

Westborough, MA

Tel: 774-760-0087

Fax: 774-760-0088

Chicago

Itasca, IL

Tel: 630-285-0071

Fax: 630-285-0075

Dallas

Addison, TX

Tel: 972-818-7423

Fax: 972-818-2924

Detroit

Novi, MI

Tel: 248-848-4000

Houston, TX

Tel: 281-894-5983

Indianapolis

Noblesville, IN

Tel: 317-773-8323

Fax: 317-773-5453

Tel: 317-536-2380

Los Angeles

Mission Viejo, CA

Tel: 949-462-9523

Fax: 949-462-9608

Tel: 951-273-7800

Raleigh, NC

Tel: 919-844-7510

New York, NY

Tel: 631-435-6000

San Jose, CA

Tel: 408-735-9110

Tel: 408-436-4270

Canada - Toronto

Tel: 905-695-1980

Fax: 905-695-2078

ASIA/PACIFIC

Asia Pacific Office

Suites 3707-14, 37th Floor
Tower 6, The Gateway
Harbour City, Kowloon

Hong Kong

Tel: 852-2943-5100

Fax: 852-2401-3431

Australia - Sydney

Tel: 61-2-9868-6733

Fax: 61-2-9868-6755

China - Beijing

Tel: 86-10-8569-7000

Fax: 86-10-8528-2104

China - Chengdu

Tel: 86-28-8665-5511

Fax: 86-28-8665-7889

China - Chongqing

Tel: 86-23-8980-9588

Fax: 86-23-8980-9500

China - Dongguan

Tel: 86-769-8702-9880

China - Guangzhou

Tel: 86-20-8755-8029

China - Hangzhou

Tel: 86-571-8792-8115

Fax: 86-571-8792-8116

China - Hong Kong SAR

Tel: 852-2943-5100

Fax: 852-2401-3431

China - Nanjing

Tel: 86-25-8473-2460

Fax: 86-25-8473-2470

China - Qingdao

Tel: 86-532-8502-7355

Fax: 86-532-8502-7205

China - Shanghai

Tel: 86-21-3326-8000

Fax: 86-21-3326-8021

China - Shenyang

Tel: 86-24-2334-2829

Fax: 86-24-2334-2393

China - Shenzhen

Tel: 86-755-8864-2200

Fax: 86-755-8203-1760

China - Wuhan

Tel: 86-27-5980-5300

Fax: 86-27-5980-5118

China - Xian

Tel: 86-29-8833-7252

Fax: 86-29-8833-7256

ASIA/PACIFIC

China - Xiamen

Tel: 86-592-2388138

Fax: 86-592-2388130

China - Zhuhai

Tel: 86-756-3210040

Fax: 86-756-3210049

India - Bangalore

Tel: 91-80-3090-4444

Fax: 91-80-3090-4123

India - New Delhi

Tel: 91-11-4160-8631

Fax: 91-11-4160-8632

India - Pune

Tel: 91-20-3019-1500

Japan - Osaka

Tel: 81-6-6152-7160

Fax: 81-6-6152-9310

Japan - Tokyo

Tel: 81-3-6880-3770

Fax: 81-3-6880-3771

Korea - Daegu

Tel: 82-53-744-4301

Fax: 82-53-744-4302

Korea - Seoul

Tel: 82-2-554-7200

Fax: 82-2-558-5932 or

82-2-558-5934

Malaysia - Kuala Lumpur

Tel: 60-3-6201-9857

Fax: 60-3-6201-9859

Malaysia - Penang

Tel: 60-4-227-8870

Fax: 60-4-227-4068

Philippines - Manila

Tel: 63-2-634-9065

Fax: 63-2-634-9069

Singapore

Tel: 65-6334-8870

Fax: 65-6334-8850

Taiwan - Hsin Chu

Tel: 886-3-5778-366

Fax: 886-3-5770-955

Taiwan - Kaohsiung

Tel: 886-7-213-7830

Taiwan - Taipei

Tel: 886-2-2508-8600

Fax: 886-2-2508-0102

Thailand - Bangkok

Tel: 66-2-694-1351

Fax: 66-2-694-1350

EUROPE

Austria - Wels

Tel: 43-7242-2244-39

Fax: 43-7242-2244-393

Denmark - Copenhagen

Tel: 45-4450-2828

Fax: 45-4485-2829

Finland - Espoo

Tel: 358-9-4520-820

France - Paris

Tel: 33-1-69-53-63-20

Fax: 33-1-69-30-90-79

France - Saint Cloud

Tel: 33-1-30-60-70-00

Germany - Garching

Tel: 49-8931-9700

Germany - Haan

Tel: 49-2129-3766400

Germany - Heilbronn

Tel: 49-7131-67-3636

Germany - Karlsruhe

Tel: 49-721-625370

Germany - Munich

Tel: 49-89-627-144-0

Fax: 49-89-627-144-44

Germany - Rosenheim

Tel: 49-8031-354-560

Israel - Ra'anana

Tel: 972-9-744-7705

Italy - Milan

Tel: 39-0331-742611

Fax: 39-0331-466781

Italy - Padova

Tel: 39-049-7625286

Netherlands - Drunen

Tel: 31-416-690399

Fax: 31-416-690340

Norway - Trondheim

Tel: 47-7289-7561

Poland - Warsaw

Tel: 48-22-3325737

Romania - Bucharest

Tel: 40-21-407-87-50

Spain - Madrid

Tel: 34-91-708-08-90

Fax: 34-91-708-08-91

Sweden - Gothenberg

Tel: 46-31-704-60-40

Sweden - Stockholm

Tel: 46-8-5090-4654

UK - Wokingham

Tel: 44-118-921-5800

Fax: 44-118-921-5820

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [MOSFET](#) category:

Click to view products by [Microchip](#) manufacturer:

Other Similar products are found below :

[614233C](#) [648584F](#) [IRFD120](#) [JANTX2N5237](#) [FCA20N60_F109](#) [FDZ595PZ](#) [2SK2545\(Q,T\)](#) [405094E](#) [423220D](#) [TPCC8103,L1Q\(CM](#)
[MIC4420CM-TR](#) [VN1206L](#) [614234A](#) [715780A](#) [NTNS3166NZT5G](#) [SSM6J414TU,LF\(T](#) [751625C](#) [BUK954R8-60E](#) [NTE6400](#) [SQJ402EP-](#)
[T1-GE3](#) [2SK2614\(TE16L1,Q\)](#) [2N7002KW-FAI](#) [DMN1017UCP3-7](#) [EFC2J004NUZTDG](#) [ECH8691-TL-W](#) [FCAB21350L1](#) [P85W28HP2F-](#)
[7071](#) [DMN1053UCP4-7](#) [NTE221](#) [NTE222](#) [NTE2384](#) [NTE2903](#) [NTE2941](#) [NTE2945](#) [NTE2946](#) [NTE2960](#) [NTE2967](#) [NTE2969](#) [NTE2976](#)
[NTE6400A](#) [NTE2910](#) [NTE2916](#) [NTE2956](#) [NTE2911](#) [DMN2080UCB4-7](#) [TK10A80W,S4X\(S](#) [SSM6P69NU,LF](#) [DMP22D4UFO-7B](#)
[DMN1006UCA6-7](#) [DMN16M9UCA6-7](#)