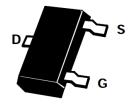


### SOT23 N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

## **Features and Benefits**

- V<sub>DS</sub> = 60V
- R<sub>DS(ON)</sub> = 5Ω
- For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q101, PPAP capable, and manufactured in IATF 16949 certified facilities), please contact us or your local Diodes representative.
- https://www.diodes.com/quality/product-definitions/



SOT23

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

Characteristic	Symbol	Value	Unit
Drain-Source Voltage	Vps	60	V
Continuous Drain Current at T <sub>A</sub> = +25°C	lo	0.15	mA
Pulsed Drain Current	Ірм	3	Α
Gate Source Voltage	Vgs	± 20	V
Power Dissipation at T <sub>A</sub> = +25°C	Ртот	330	mW
Operating and Storage Temperature Range	$T_{J}$ , $T_{STG}$	-55 to +150	°C

# **Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition	
Drain-Source Breakdown Voltage	BV <sub>DSS</sub>	60	90	_	V	$I_D = 100 \mu A, V_{GS} = 0 V$	
Gate-Source Threshold Voltage	$V_{GS(TH)}$	0.8	_	3	V	$I_D = 1 \text{mA}, V_{DS} = V_{GS}$	
Gate-Body Leakage	I <sub>GSS</sub>	-	_	10	nA	$V_{GS} = 15V, V_{DS} = 0V$	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	_	_	0.5	μА	$V_{DS} = 25V, V_{GS} = 0V$	
Static Drain-Source On-State Resistance	R <sub>DS(ON)</sub>	_	_	5	Ω	$V_{GS} = 10V, I_D = 200mA$	
Forward Transconductance (Note 1) (Note 2)	g <sub>fs</sub>	_	200	_	ms	V <sub>DS</sub> = 10V, I <sub>D</sub> = 200mA	
Input Capacitance (Note 2)	C <sub>iss</sub>	_	60	_	pF	$V_{DS} = 10V, V_{GS} = 0V,$ f = 1.0MHz	
Turn-On Delay Time (Note 2) (Note 3)	t <sub>D(ON)</sub>	_	_	10	ns	V <sub>DD</sub> ≈ -15V, I <sub>D</sub> = 600mA	
Turn-Off Delay Time (Note 2) (Note 3)	t <sub>D(OFF)</sub>	_		10	ns		

Notes:

- 1. Measured under pulsed conditions. Width =  $300\mu s$ . Duty cycle  $\leq 2\%$ .
- 2. Sample test.
- Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator.</li>
  Spice parameter data is available upon request for this device.
  For typical characteristics graphs refer to ZVN3306F datasheet.



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  - 2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.
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