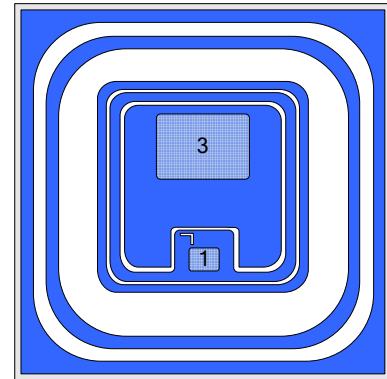


## 3VD212600YL HIGH VOLTAGE MOSFET CHIPS

### DESCRIPTION

- 3VD212600YL is a High voltage N-Channel enhancement mode power MOS-FET chip fabricated in advanced silicon epitaxial planar technology.
- Advanced termination scheme to provide enhanced voltage-blocking capability.
- Avalanche Energy Specified
- Source-to-Drain Diode Recovery Time Comparable to a Discrete Fast Recovery Diode
- The chips may packaged in TO-251 type and the typical equivalent product is 1N60A.
- The packaged product is widely used in AC-DC power suppliers, DC-DC converters and H-bridge PWM motor drivers.
- Die size: 2.12mm\*2.02mm.
- Chip Thickness: 300±20μm.
- Top metal: Al, Backside Metal: Ag.



PAD1:GATE PAD3:SOURCE

CHIP TOPOGRAPHY

### ABSOLUTE MAXIMUM RATINGS (T<sub>amb</sub>=25°C)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V <sub>DS</sub>	600	V
Gate-Source Voltage	V <sub>GS</sub>	±30	V
Drain Current	I <sub>D</sub>	1.0	A
Power Dissipation(TO-251 Package)	P <sub>D</sub>	28	W
Operation Junction Temperature	T <sub>J</sub>	-55~+150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain -Source Breakdown Voltage	B <sub>VDS</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =250μA	600	-	-	V
Gate Threshold Voltage	V <sub>TH</sub>	V <sub>GS</sub> = V <sub>DS</sub> , I <sub>D</sub> =250μA	2.0	-	4.0	V
Drain-Source Leakage Current	I <sub>DSS</sub>	V <sub>DS</sub> =600V, V <sub>GS</sub> =0V	-	-	1.0	μA
Static Drain- Source On State Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =0.5A	-	8.1	8.5	Ω
Gate-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±30V, V <sub>DS</sub> =0V	-	-	±100	nA
Source-Drain Diode Forward On Voltage	V <sub>FSD</sub>	I <sub>S</sub> =1.0A, V <sub>GS</sub> =0V	-	-	1.4	V