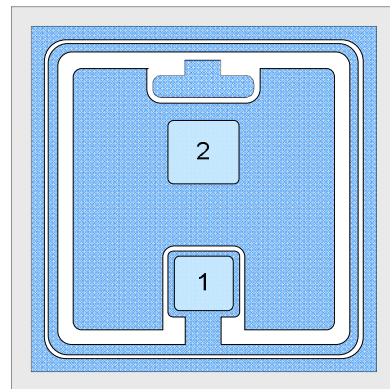
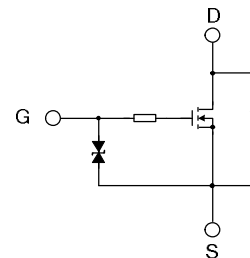


3VD060060NEJL N-CH MOSFET CHIPS WITH ESD PROTECTED STRUCTURE
DESCRIPTION

- Ø 3VD060060JL is a N-Channel enhancement mode MOS-FET chip fabricated in advanced silicon epitaxial planar technology.
- Ø Zener diode ESD protected up to 2KV
- Ø High density cell design for low $R_{DS(ON)}$
- Ø Rugged and reliable.
- Ø Fast switching performance.
- Ø High saturation current capability.
- Ø The chips may be packaged in SOT-23 type and the typical equivalent product is 2N7002K.
- Ø The packaged product is widely used in the small servo motor control, power MOS-FET gate drivers, and other switching applications.
- Ø Die size: 0.60mm*0.60mm.
- Ø Chip Thickness: 230±20µm.
- Ø Top metal : Al, Backside Metal : Au.



PAD1: GATE PAD2: SOURCE

CHIP TOPOGRAPHY

EQUIVALENT CIRCUIT
ABSOLUTE MAXIMUM RATINGS ($T_{amb}=25^{\circ}\text{C}$)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V _{DS}	60	V
Gate-Source Voltage	V _{GS}	±20	V
Drain Current	I _D	300	mA
Power Dissipation (SOT-23)	P _D	350	mW
Operation Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55-150	°C

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =10µA	60	--	--	V
Gate-Threshold Voltage*	V _{th(GS)}	V _{DS} = V _{GS} , I _D =250µA	1	--	2.5	
Gate-body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±20V	--	--	±10	µA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V	--	--	1	µA
Drain-Source On-Resistance*	R _{DS(on)}	V _{GS} =10V, I _D =500mA	--	--	2.0	Ω
		V _{GS} =5V, I _D =50mA	--	--	3.0	

Note:* Pulse test, pulse width≤300µS, duty cycles≤2%