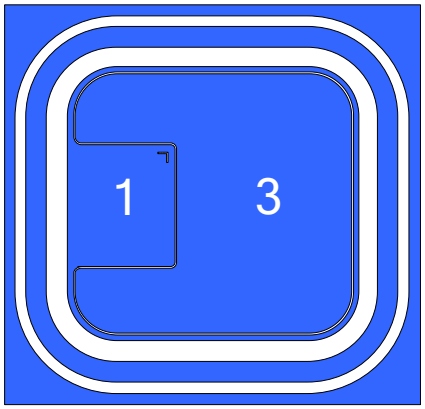
Silan
Microelectronics

3VD186600YL HIGH VOLTAGE MOSFET CHIPS

DESCRIPTION

- 3VD186600YL 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-251-3Ltype and the typical equivalent product is 1N60.
- The packaged product is widely used in AC-DC power suppliers, DC-DC converters and H-bridge PWM motor drivers.
- Die size: 1.96mm*1.78mm.
- Chip Thickness: 300±20μm.
- Top metal : Al, Backside Metal : Ag.



1-Gate PAD 3-Source PAD

CHIP TOPOGRAPHY

ABSOLUTE MAXIMUM RATINGS (Tamb=25°C)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V_{DS}	600	V
Gate-Source Voltage	V_{GS}	±30	V
Drain Current	I_D	1.0	A
Operation Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55-150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D=250uA	600	---	----	V
Gate-Threshold Voltage	$V_{th(GS)}$	I_D=250uA ,V_{DS}=V_{GS}	2.0	---	4.0	V
Gate-Body Leakage	I_{GSS}	V_{GS}=±30V, V_{DS}=0V	---	---	±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=600V, V_{GS}=0V	---	---	1.0	μA
Drain-Source On-Resistance	$R_{DS(on)}$	I_D=0.4A, V_{GS}=10V	---	---	11	Ω
Source-Drain Diode Forward On Voltage	V_{FSD}	I_D=1.0A,V_{GS}=0V	---	---	1.4	V