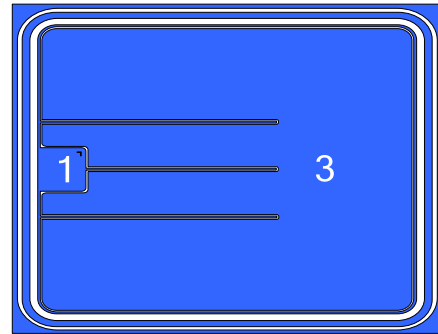


3VD499650YL HIGH VOLTAGE MOSFET CHIPS

DESCRIPTION

- 3VD499650YL 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-220 type and the typical equivalent product is 12N65;
- The packaged product is widely used in AC-DC power suppliers, DC-DC converters and H-bridge PWM motor drivers;
- Die size: 5.66mm*4.4mm;
- Chip Thickness: 300±20μm;
- Top metal: Al, Backside Metal: Ag.



1-Gate PAD 3-Source PAD

CHIP TOPOGRAPHY

ABSOLUTE MAXIMUM RATINGS (T_{amb}=25°C)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V _{DS}	650	V
Gate-Source Voltage	V _{GS}	±30	V
Drain Current	I _D	12	A
Power Dissipation (TO-220 Package)	P _D	180	W
Operation Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Drain -Source Breakdown Voltage	B _{VDS}	V _{GS} =0V, I _D =250μA	650	-	-	V
Gate Threshold Voltage	V _{TH}	V _{GS} = V _{DS} , I _D =250μA	2.0	-	4.0	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =650V, V _{GS} =0V	-	-	1.0	μA
Static Drain- Source On State Resistance	R _{DS(on)}	V _{GS} =10V, I _D =6.0A	-	-	0.8	Ω
Gate-Source Leakage Current	I _{GSS}	V _{GS} =±30V, V _{DS} =0V	-	-	±100	nA
Source-Drain Diode Forward on Voltage	V _{FSD}	I _S =12A, V _{GS} =0V	-	-	1.4	V