

BLV7002 N-channel Enhancement Mode Vertical D-MOS Transistor Chip

Description

N-channel enhancement mode field-effect transistor

Features

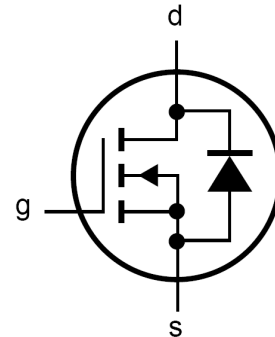
Very fast switching
 Logic level compatible

Applications

Relay driver
 High speed line driver
 Logic level translator.

structure

Planar type
 Electrodes: Aluminum alloy
 Backside metal: Au alloy


Size

Chip size: 495 μ m x 490 μ m
 Chip thickness: 220 \pm 20 μ m.
 Scribe street width: 50 μ m
 Pad size: 90 μ m x 90 μ m
 Die per wafer: 25800

ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Min.	Max.	Unit
V_{DS}	Drain – source voltage (DC)	-	60	V
V_{GS}	Gate – source voltage (DC)	-	± 20	V
I_D	Drain current (DC)	-	115	mA
I_{DM}	Peak drain current	-	0.46	A
P_{tot}	Total power dissipation	-	0.2	W
T_{STG}	Storage temperature	-55	+150	$^{\circ}$ C
T_j	Junction temperature	-	150	$^{\circ}$ C

CHARACTERISTICS
 $T_j = 25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
BV_{DSS}	Drain-source breakdown voltage	$V_{GS}=0V, I_D=250\mu A$	60	73	-	V
I_{DSS}	Drain-source leakage current	$V_{DS}=60V, V_{GS}=0V$	-	1	500	nA
I_{GSS}	Gate-source leakage current	$V_{GS}=\pm 20V, V_{DS}=0V$	-	1	± 100	nA
$V_{GS(th)}$	Gate-source threshold voltage	$V_{DS}=2.5V, I_D=250\mu A$	1	-	2.5	V
$R_{DS(on)}$	Drain-source on-state resistance	$V_{GS}=10V, I_D=100mA$	-	1.3	5	Ω
C_{ies}	Input capacitance	$V_{DS}=25V, V_{GS}=0V$ $f = 1MHz$	-	-	50	pF
C_{oss}	Output capacitance		-	-	25	pF
C_{rss}	Reverse transfer capacitance		-	-	5	pF
t_{on}	Turn-On time	$V_{DD}=30V, I_D=200mA$	-	-	30	ns
t_{off}	Turn-Off time	$V_{GS}=0-10V$	-	-	30	ns

PATTERN DRAWING
