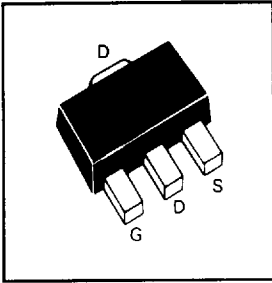


SOT89 N-CHANNEL ENHANCEMENT
MODE VERTICAL D.MOSFET

ZVN2106Z

PARTMARKING DETAIL:
ZVN2106Z - N16

• FOR TYPICAL CHARACTERISTICS GRAPHS
SEE ZVN2106G DATA SHEET



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V_{DS}	60	V
Continuous Drain Current (at $T_a = 25^{\circ}\text{C}$)	I_D	0.61	A
Pulsed Drain Current	I_{DM}	8	A
Gate-Source Voltage	V_{GS}	± 20	V
Max. Power Dissipation at $T_{amb} = 25^{\circ}\text{C}$	P_D	1.5	W
Operating and Storage Temperature Range	$t_j:tstg$	$- 55 \text{ to } + 150$	$^{\circ}\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Drain-Source Breakdown Voltage	BV_{DSS}	60			V	$I_D = 1\text{mA}$, $V_{GS} = 0\text{V}$
Gate-Source Threshold Voltage	$V_{GS(th)}$	0.8		2.4	V	$I_D = 1\text{mA}$, $V_{DS} = V_{GS}$
Gate Body Leakage	I_{GSS}		0.1	20	nA	$V_{GS} = \pm 20\text{V}$, $V_{DS} = 0\text{V}$
Zero Gate Voltage Drain Current	I_{DSS}			0.5	μA	$V_{DS} = \text{Max. rating}$, $V_{GS} = 0$
				0.1	mA	$V_{DS} = 0.8 \times \text{Max. rating}$ $V_{GS} = 0\text{V}$ ($T = 125^{\circ}\text{C}$) (2)
On-Site Drain Current (1)	$I_{D(on)}$	2	3		A	$V_{DS} = 18\text{V}$, $V_{GS} = 10\text{V}$
Static Drain-Source On-State Resistance	$R_{DS(on)}$			2	Ω	$I_D = 1\text{A}$, $V_{GS} = 10\text{V}$
Forward Transconductance (1) (2)	g_{fs}	0.3	0.4		S	$V_{DS} = 18\text{V}$, $I_D = 1\text{A}$
Input Capacitance (2)	C_{iss}		60	75	pF	$V_{DS} = 18\text{V}$, $V_{GS} = 0$ $f = 1\text{MHz}$
Common Source Output Capacitance (2)	C_{oss}		30	45	pF	
Reverse Transfer Capacitance (2)	C_{rss}		15	20	pF	
Turn-On Delay Time (2) (3)	$t_{d(on)}$		4	7	ns	$V_{DD} \approx 18\text{V}$ $I_D = 1\text{A}$
Rise Time (2) (3)	t_r		5	8	ns	
Turn-Off Delay Time (2) (3)	$t_{d(off)}$		8	12	ns	
Fall Time (2) (3)	t_f		10	15	ns	