

Product Summary

- V_{DS} 60V
- I_D 350mA
- $R_{DS(ON)}$ (at $V_{GS}=10V$) <5 ohm
- $R_{DS(ON)}$ (at $V_{GS}=4.5V$) <4.5 ohm
- ESD Protected:2000V

Application

- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

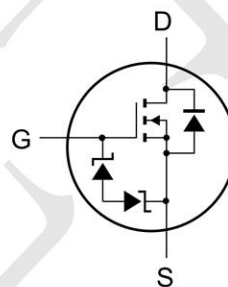
Package and Pin Configuration



DFN1006-3L

marking:4S

Circuit diagram



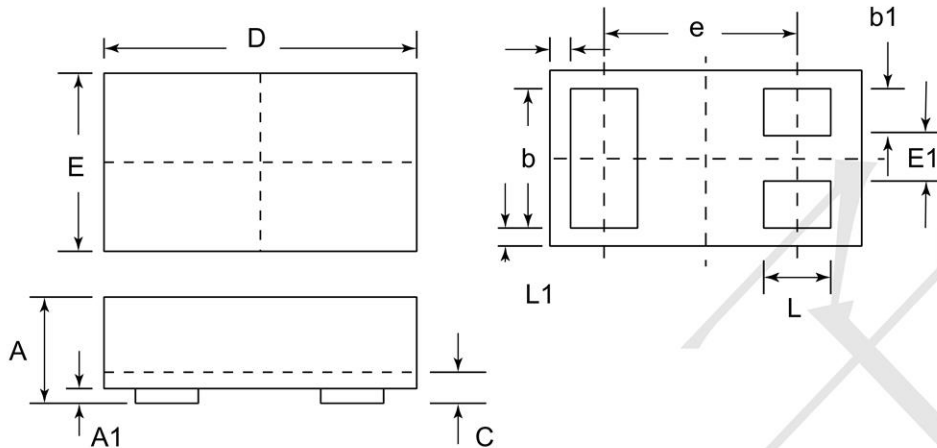
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	± 350	mA
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

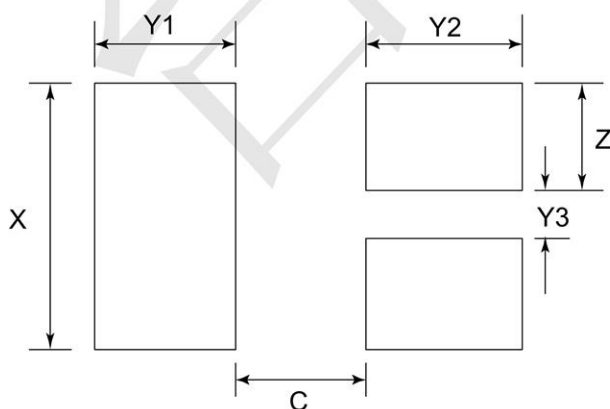
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain -Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 10\mu A$	60			V
		$V_{GS} = 0V, I_D = 3mA$	60			
Gate Threshold Voltage	$V_{th(GS)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1.0	1.85	2.5	V
Gate-Source Leakage Current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			± 10	μA
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 60V, V_{GS} = 0V$			1	μA
Static Drain- Source On State Resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 500mA$			5	Ω
		$V_{GS} = 4.5V, I_D = 200mA$		1.5	4.3	
Input Capacitance	C_{rss}	$V_{GS} = 10V$			42	pF
Input Capacitance	C_{rss}	$V_{GS} = 0V$			30	
Input Capacitance	C_{rss}	$V_{GS} = 1MHz$			10	
Turn-on delay time	$t_{d(on)}$	$V_{DD} = 25V, V_{GS} = 10V, R_L = 250\Omega,$ $R_{GS} = 50K, R_{GEN} = 25\Omega$			10	ns
Turn-on delay time	$t_{d(on)}$				15	

DFN1006 3L Package Outline Drawing



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
b1	0.10	0.15	0.20	0.004	0.006	0.008
C	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
E1	0.15	0.20	0.25	0.006	0.008	0.010
L	0.20	0.25	0.30	0.008	0.010	0.012
L1	0.05 REF			0.0002 REF		

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	0.25	0.010
X	0.65	0.024
Y1	0.50	0.020
Y2	0.50	0.020
Y3	0.25	0.010
Z	0.20	0.008