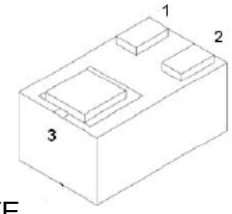
Leiditech

LM1D02P06

P-Channel Enhancement Mode Field Effect Transistor

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-60V	3 Ω@10V	-200mA
	3.5Ω@4.5V	

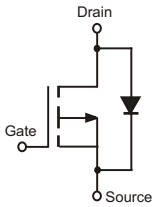
DFN1006-3



1.GATE
2.SOURCE
3.DRAIN

Features

- Low On-Resistance
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage



Maximum Ratings

@ T_A = 25°C unless otherwise specified

Characteristic		Symbol	PL02P06	Units
Drain-Source Voltage		V_{DSS}	-60	V
Drain-Gate Voltage $R_{GS} \leq 20K\Omega$		V_{DGR}	-60	V
Gate-Source Voltage	Continuous	V_{GSS}	±20	V
Drain Current (Note 1)	Continuous	I_D	-200	mA
Total Power Dissipation (Note 1)		P_d	300	mW
Thermal Resistance, Junction to Ambient		$R_{\theta JA}$	417	°C/W
Operating and Storage Temperature Range		T_j, T_{STG}	-55 to +150	°C

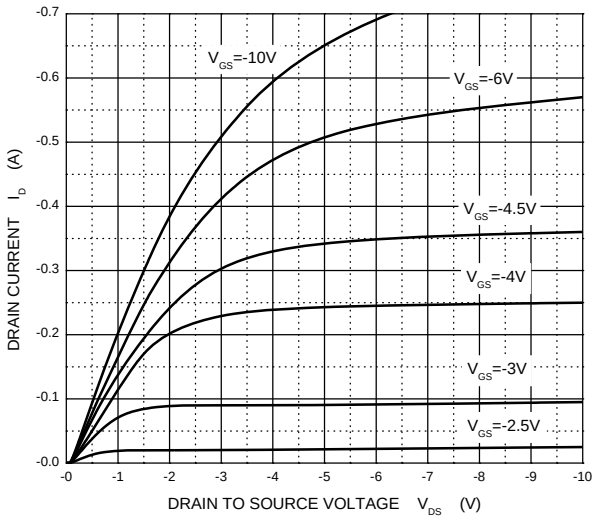
Electrical Characteristics

@ T_A = 25°C unless otherwise specified

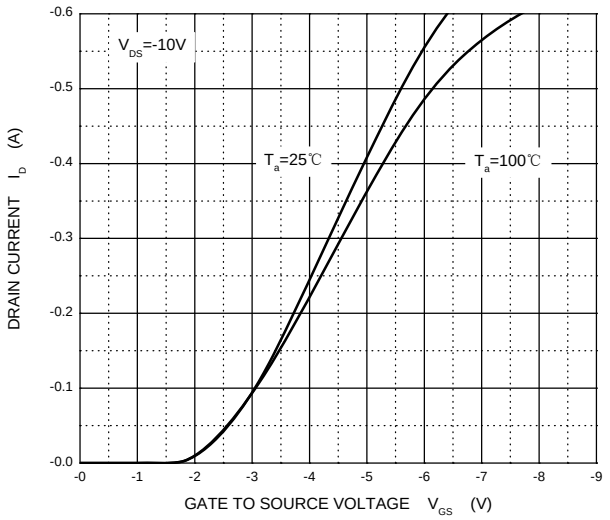
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 2)						
Drain-Source Breakdown Voltage	BV_{DSS}	-60	—	—	V	V_{GS} = 0V, I_D = -250μA
Zero Gate Voltage Drain Current	I_{DSS}	— — —	— — —	-15 -60 -100	μA μA nA	V_{DS} = -50V, V_{GS} = 0V, T_J = 25°C V_{DS} = -50V, V_{GS} = 0V, T_J = 125°C V_{DS} = -25V, V_{GS} = 0V, T_J = 25°C
Gate-Body Leakage	I_{GSS}	—	—	±10	nA	V_{GS} = ±20V, V_{DS} = 0V
ON CHARACTERISTICS (Note 2)						
Gate Threshold Voltage	$V_{GS(th)}$	-0.8	—	-2.0	V	V_{DS} = V_{GS}, I_D = -1mA
Static Drain-Source On-Resistance	$R_{DS\ (ON)}$		3	8	Ω	V_{GS} = -10V, I_D = 0.2A
Forward Transconductance	g_{FS}	.05	—	—	S	V_{DS} = -25V, I_D = 0.1A
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}	—	—	45	pF	V_{DS} = -25V, V_{GS} = 0V f = 1.0MHz
Output Capacitance	C_{oss}	—	—	25	pF	
Reverse Transfer Capacitance	C_{rss}	—	—	12	pF	
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_{D(ON)}$	—	10	—	ns	V_{DD} = -30V, I_D = -0.27A, R_{GEN} = 50Ω, V_{GS} = -10V
Turn-Off Delay Time	$t_{D(OFF)}$	—	18	—	ns	

Typical Characteristics

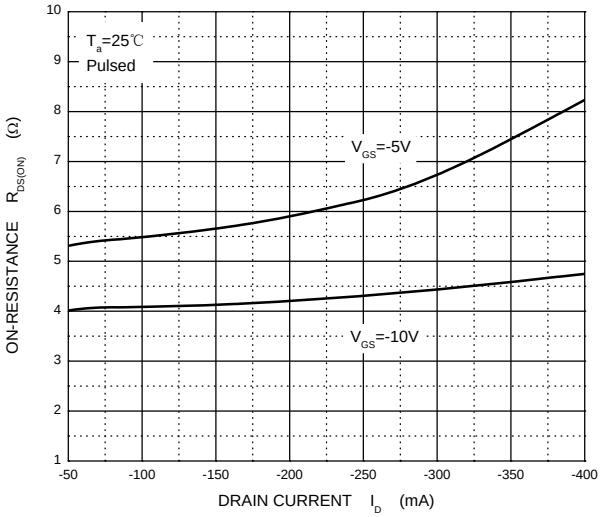
Output Characteristics



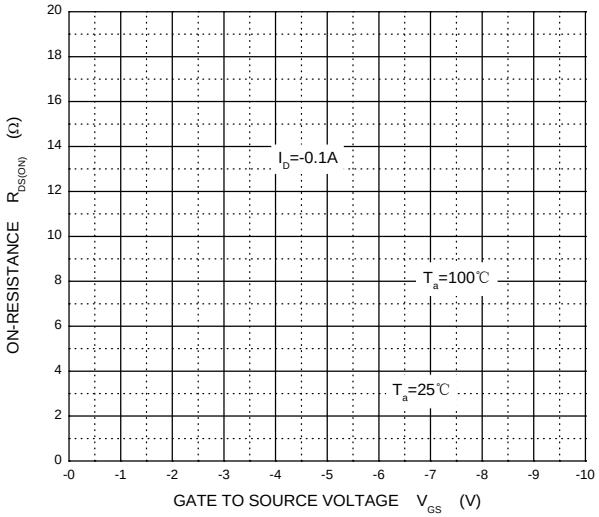
Transfer Characteristics



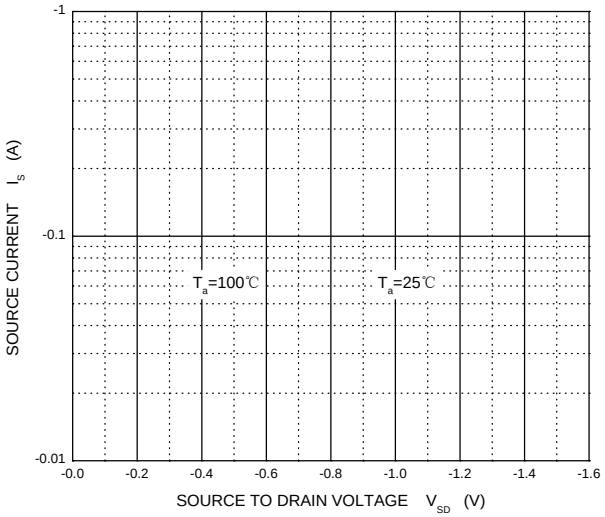
$R_{DS(ON)}$ —— I_D



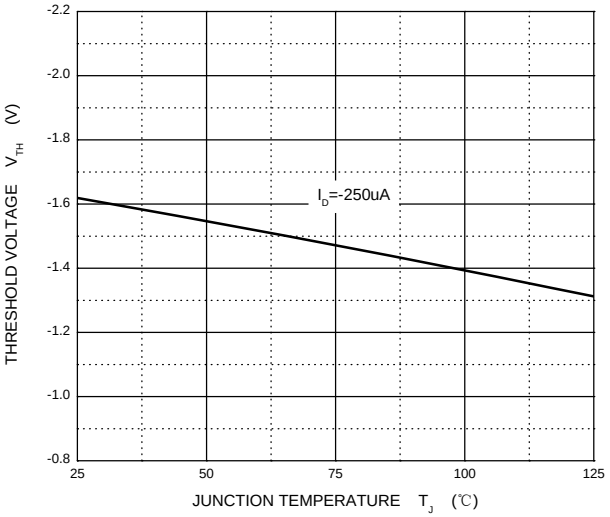
$R_{DS(ON)}$ —— V_{GS}



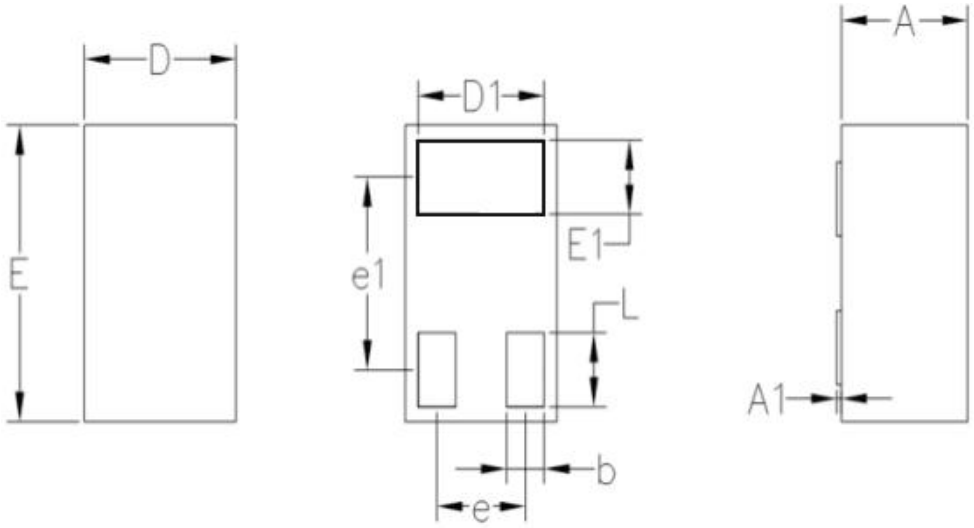
I_S —— V_{SD}



Threshold Voltage



DFN1006-3 **Package Outline Dimensions**



SYMBOL	DIMENSIONS IN MM		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0.00	—	0.05
D	0.55	0.60	0.65
E	0.95	1.00	1.05
D1	045	0.50	0.55
E1	0.20	0.25	0.30
L	0.20	0.25	0.30
b	0.10	0.15	0.20
e	0.35BSC		
e1	0.65BSC		

Shanghai Leiditech Electronic Co.,Ltd
Email: sale1@leiditech.com
Tel : +86- 021 50828806
Fax : +86- 021 50477059