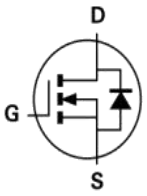
LT15N06AG

N- Channel Advanced Power MOSFET

MAIN CHARACTERISTICS

I_D	15A
V_{DSS}	60V
R_{DSON}-typ （@V_{GS}=10V）	28mΩ



PDFN5x6

FEATURES

- Fast Switching
- Low ON Resistance
- Low Gate Charge
- 100% Single Pulse avalanche energy Test

APPLICATIONS

- Power switch circuit of adaptor and charger.

MECHANICAL DATA

- Case: Molded plastic
- Mounting Position: Any
- Molded Plastic: UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275℃ maximum,10s per JESD 22-B106

Product specification classification

Part Number	Package	Mode Name	Pack
LT15N06AG	PDFN5x6	LT15N06AG	Tape

LT15N06AG

N- Channel Advanced Power MOSFET

Maximum Ratings at Tc=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Continue Drain Current	I_D	15	A
Pulsed Drain Current (Note1)	I_{DM}	50	A
Power Dissipation	P_D	18	W
Single Pulse Avalanche Energy (Note5)	E_{AS}	25	mJ
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Thermal Resistance, Junction to Case(Note 2)	$R_{\theta JC}$	3	°C/W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	62	°C/W

Note1:Pulse test: 300 μs pulse width, 2 % duty cycle

Electrical Characteristics at Tc=25°C unless otherwise specified

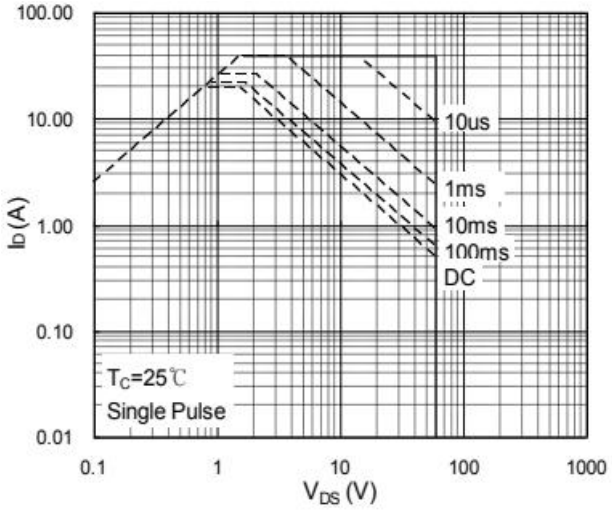
Characteristics	Test Condition	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{GS} = 0 V,I_D = 250 μA	BV_{DSS}	60	-	-	V
Drain-Source Leakage Current	V_{DS} = 60V, V_{GS} = 0 V	I_{DSS}	-	-	1	μA
	V_{DS}=60V,Tc=125°C		-	-	100	μA
Gate Leakage Current	V_{GS} = ± 20 V, V_{DS} = 0 V	I_{GSS}	-	-	±100	nA
Gate-Source Threshold Voltage	V_{DS} = V_{GS} , I_D = 250 μA	$V_{GS(th)}$	1	-	2.5	V
Drain-Source On-State Resistance (Note 3)	V_{GS} = 10 V, I_D = 10 A	$R_{DS(on)}$	-	28	37	mΩ
	V_{GS} = 4.5 V, I_D = 5 A	$R_{DS(on)}$		35	48	mΩ
Forward Transconductance	V_{DS} = 50 V, I_D = 25 A	gfs	-	20	-	S
Input Capacitance	V_{GS} = 0 V, V_{DS} = 25 V, f = 1 MHz	C_{iss}	-	1050	-	pF
Output Capacitance		C_{oss}	-	65	-	pF
Reverse Transfer Capacitance		C_{rss}	-	45	-	pF
Turn-on Delay Time	VDS=30V, RL=1.5Ω VGS=10V,RG=3Ω (Note3,4)	$t_{d(ON)}$	-	2.8	-	ns
Rise Time		t_r	-	17	-	ns
Turn-Off Delay Time		$t_{d(OFF)}$	-	20	-	ns
Fall Time		t_f	-	5	-	ns
Total Gate Charge	VDS=30V,ID=10A, VGS=10V (Note3,4)	Q_G	-	19	-	nC
Gate to Source Charge		Q_{GS}	-	2.3	-	nC
Gate to Drain Charge		Q_{GD}	-	4.6	-	nC

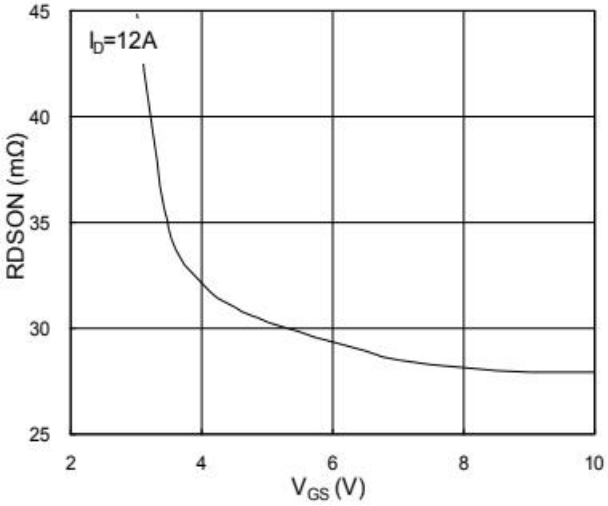
Source-Drain Diode Characteristics at Ta=25°C unless otherwise specified

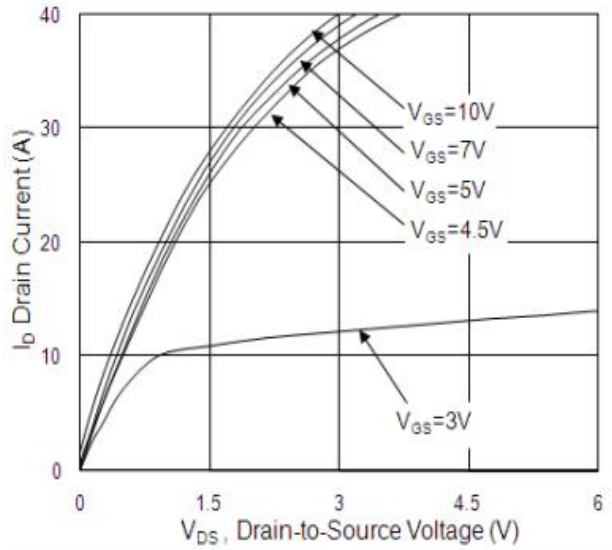
Characteristics	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Maximun Body-Diode Continuous Current (Note 2)		I_S	-	-	15	A
Maximun Body-Diode Pulsed Current		I_{SM}	-	-	50	A
Drain-Source Diode Forward Voltage	I_{SD} = 10A	V_{SD}	-	-	1.2	V
Reverse Recovery Time	I_S = I_F, ISD=10A,V_{GS} = 0 V, dI / dt = 100 A/μs	trr	-	12	-	ns
Reverse Recovery Charge		Qrr	-	7	-	μC

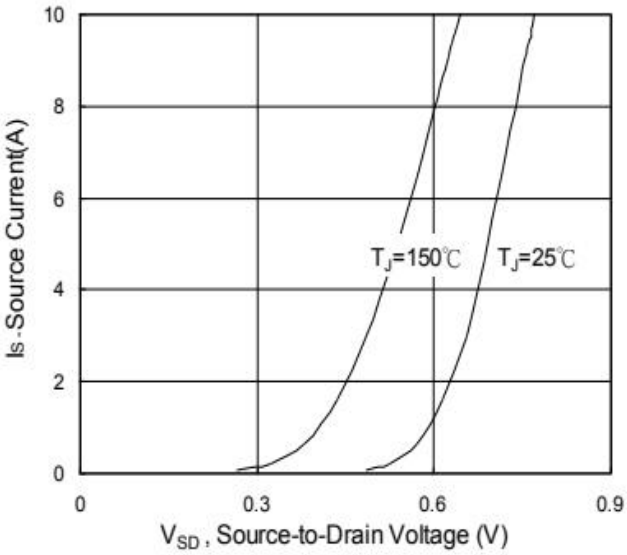
Note2:Pulse test: 300 μs pulse width, 2 % duty cycle

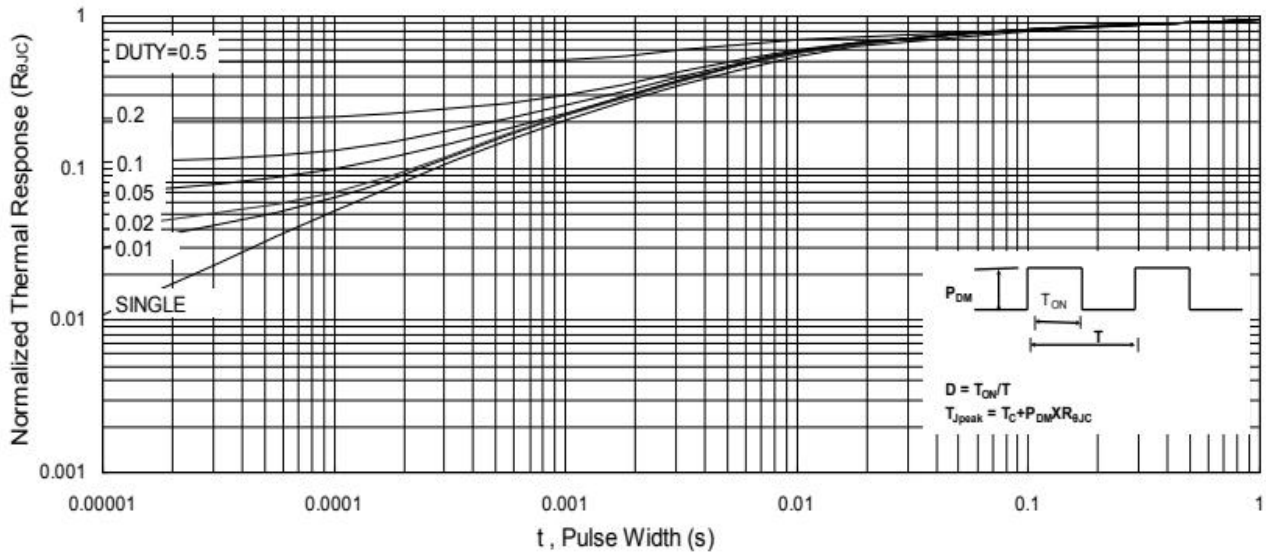
RATINGS AND CHARACTERISTIC CURVES





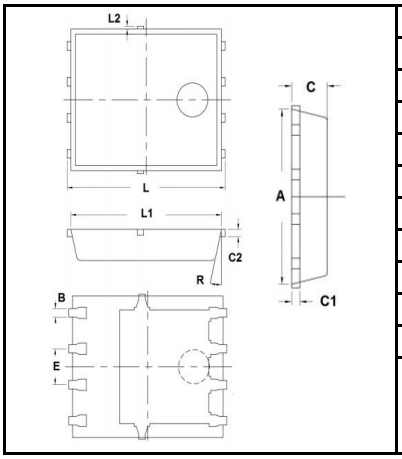






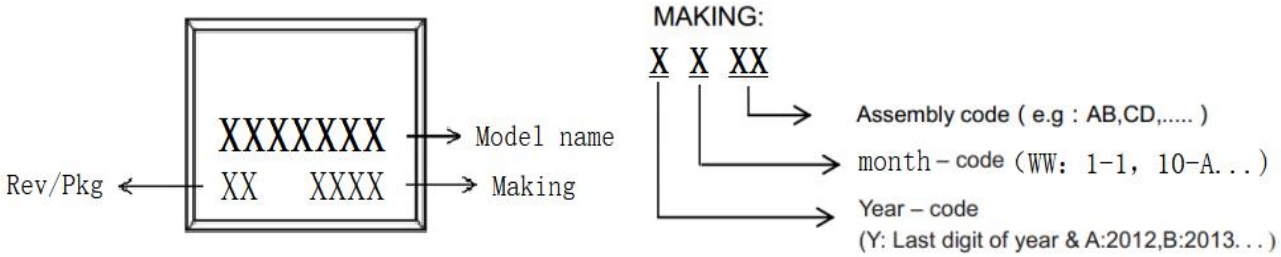
Package Outline Dimensions millimeters

PDFN5*6



Dim.	Min.	Max.
A	4.8	5.2
B	0.25	0.35
C	1	1.2
C1	Typ0.254	
C2	Typ0.254	
E	Typ1.27	
L	6	6.3
L1	5.7	6
L2	Max0.2	
R	Typ13°	
All Dimensions in millimeter		

Marking on the body



packing instruction

PKG	最小包装	内盒	外箱
PDFN5x6			
	5000pcs/盘	10000pcs/盒	50000pcs/箱

Notice

All product,product specifications and data are subject to change without notice to improve.The right to explain is owned by LINGXUN electronics company.

Confirm that operation temperature is within the specified range described in the product specification. Avoid applying poer exceeding normal rated poer; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.

LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.