IXFH22N65X2-OSEN

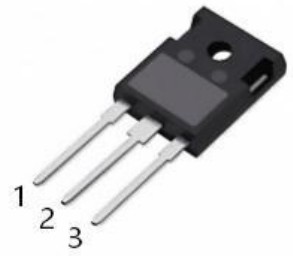
650V N-CHANNEL MOSFET

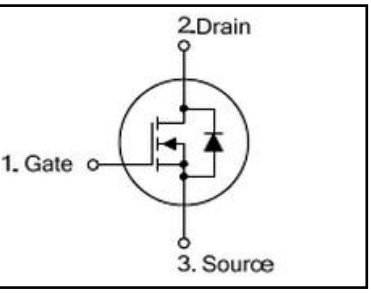
◆ Features:

- ✧ Fast switching speed
  开关速度快
- ✧ High input impedance and low level drive
  高输入阻抗和低电平驱动
- ✧ Avalanche energy tested
  雪崩能量测试
- ✧ Improved dv/dt capability，high ruggedness
  提高 dv/dt 能力，高耐用性

RoHS COMPLIANT

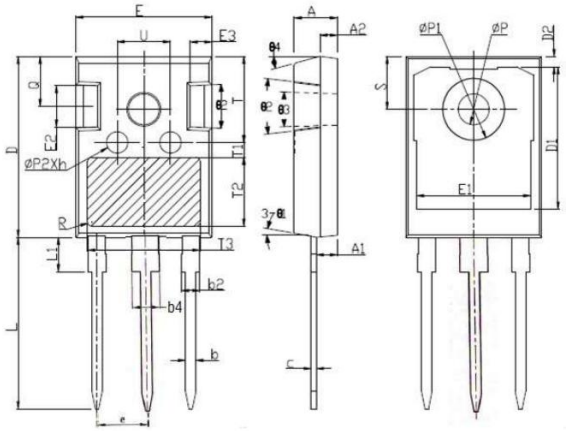
TO-247G





◆ Applications

- ✧ High efficiency switch mode power supplies
  高效率开关电源
- ✧ Power factor correction
  功率因数校正
- ✧ Electronic lamp ballast
  电子整流器



Symbol	Min	Nom	Max	Symbol	Min	Nom	Max
A	4.9	5.0	5.1	e		5.44BSC	
A1	2.3	2.4	2.5	h	0.05	0.10	0.15
A2	1.9	2.0	2.1	L	19.6	19.9	20.2
b	1.10	1.20	1.25	L1			4.3
b2	1.90	2.00	2.25	Φp	3.5	3.6	3.75
b4	2.90	3.00	3.25	Φp1			7.3
c	0.50	0.60	0.70	Φp2	2.4	2.5	2.6
D	20.8	21.0	21.2	Q	5.3		5.9
D1	16.25	16.55	16.85	S		6.15BSC	
D2	1.05	1.20	1.35	T	9.8		10.2
E	15.6	15.8	16.0	T1		1.65REF	
E1	13.1	13.3	13.5	T2		8.0REF	
E2	4.9	5.0	5.1	T3		12.8REF	
E3	2.4	2.5	2.6	U	6.0		6.4
单位		mm		型号		TO-247G	

◆ Absolute Maximum Ratings (Tc=25°C)

Symbol	Parameters	Ratings	Unit
V_{DSS}	Drain-Source Voltage 漏源电压	**650**	V
V_{GS}	Gate-Source Voltage-Continuous 栅源电压	**±30**	V
I_D	Drain Current-Continuous（Note 2） 漏极持续电流	**22**	A
I_{DM}	Drain Current-Single Plused（Note 1） 漏极单次脉冲电流	**44**	A
P_D	Power Dissipation （Note 2） 功率损耗	**390**	W
T_j	Max.Operating junction temperature 最大结温	**150**	℃

◆ Electrical characteristics (Tc=25°C unless otherwise noted)

Symbol	Parameters	Min	Typ	Max	Units	Conditions
Static Characteristics						
B_{VDSS}	Drain-Source Breakdown Voltage Current （Note 1） 漏极击穿电压	**650**	--	--	V	I_D=250uA，V_{GS}=0V，T_J=25°C
$V_{GS(th)}$	Gate Threshold Voltage 栅极开启电压	**2.5**	--	**4.5**	V	V_{DS}=V_{GS}，I_D=250μA
$R_{DS(on)}$	Drain-Source On-Resistance 漏源导通电阻	--	--	**145**	mΩ	V_{GS}=10V，I_D=11A
I_{GSS}	Gate-Body Leakage Current 栅极漏电流	--	--	**±100**	nA	V_{GS}=±30V，V_{DS}=0
I_{DSS}	Zero Gate Voltage Drain Current 零栅极电压漏极电流	--	--	**1**	μA	V_{DS}=650V，V_{GS}=0
gfs	Forward Trans conductance 正向跨导	--	**14**	--	S	V_{DS}=20V，I_D=11A

Switching Characteristics						
$T_{d(on)}$	Turn-On Delay Time 开启延迟时间	--	**35**	--	ns	V_{DS}=325V， I_D=11A， R_G=10Ω（Note 2）
T_r	Rise Time 上升时间	--	**41**	--	ns	
$T_{d(off)}$	Turn-Off Delay Time 关闭延迟时间	--	**46**	--	ns	
T_f	Fall Time 下降时间	--	**25**	--	ns	
Q_g	Total Gate Charge 栅极总电荷	--	**43**	--	nC	V_{DS}=325V， V_{GS}=10V， I_D=11A（Note 2）
Q_{gs}	Gate-Source Charge 栅源极电荷	--	**13**	--	nC	
Q_{gd}	Gate-Drain Charge 栅漏极电荷	--	**17**	--	nC	
Dynamic Characteristics						
C_{iss}	Input Capacitance 输入电容	--	**1700**	--	pF	V_{DS}=25V，V_{GS}=0， f=1MHz
C_{oss}	Output Capacitance 输出电容	--	**1340**	--	pF	
C_{rss}	Reverse Transfer Capacitance 反向传输电容	--	**2.4**	--	pF	
I_S	Continuous Drain-Source Diode Forward Current（Note 2） 二极管导通正向持续电流	--	--	**22**	A	
V_{SD}	Diode Forward On-Voltage 二极管正向导通电压	--	--	**1.2**	V	I_S=22A，V_{GS}=0
$R_{th(j-c)}$	Thermal Resistance, Junction to Case 结到外壳的热阻	--	--	**0.32**	°C/W	

Note 1: Repetitive Rating : Pulse width limited by maximum junction temperature
Note 2: Pulse test: PW <= 300us , duty cycle <= 2%.

◆ DISCLAIMER

Unless otherwise specified in the datasheet, OSEN products are designed and qualified as standard commercial products and are not intended for use in applications that require extraordinary levels of quality and reliability, such as automotive, aviation/aerospace, and life-support devices or systems.

Semiconductor products are subject to an inherent possibility of failure or malfunction under certain conditions, which may result in personal injury, death, or property damage. Customers shall be solely responsible for ensuring adequate safety provisions in their system designs. And independently assume all responsibility arising from the application or use of the products or circuits described in this document

OSEN does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others. OSEN reserves the right to improve product design, function, and reliability without notice.