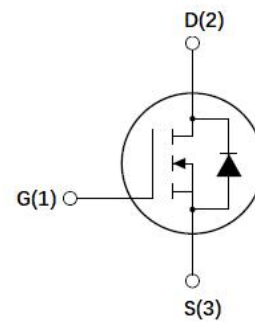
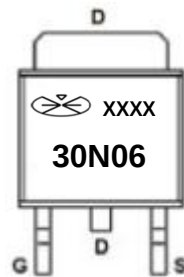
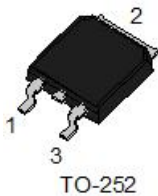


**30N06****N-Channel Mode Power MOSFET****Features**

- Hard density cell design for ultra low $R_{DS(ON)}$
- Low gate charge

Application

- Hard switched and high frequency circuits
- Uninterruptible power supply

Package**Package Marking and Ordering Information**

Product ID	PACK	Qty (pcs)
30N06	TO-252	2500

MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$ unless otherwise noted)

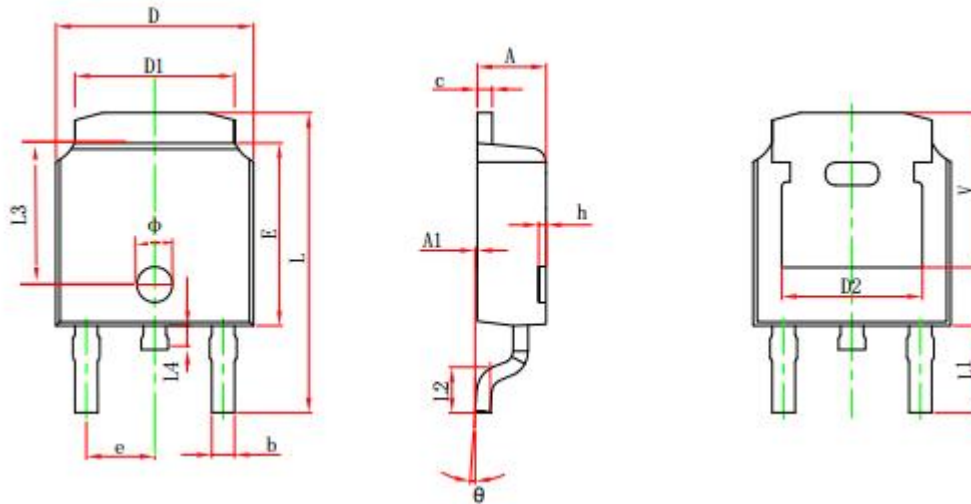
Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source Voltage	60	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Continuous Drain Current	30	A
I_{DM}	Pulsed Drain Current	80	A
P_D	Power Dissipation	1.25	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 to 150	
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	100	$^{\circ}\text{C/W}$
$R_{\theta JC}$	Thermal Resistance From Junction To Case	2.6	$^{\circ}\text{C/W}$

**30N06*****N-Channel Mode Power MOSFET*****MOSFET ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Off characteristics						
Drain-Source breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V,I _D =250μA	60			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =60V,V _{GS} =0V			100	nA
Gate-body leakage current	I _{GSS}	V _{DS} =0V,V _{GS} =± 20V			± 100	nA
On characteristics						
Gate-threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} ,I _D =250μA	1.1		2.1	V
Non-triggering gate voltage	R _{DS(on)}	V _{GS} =10V,I _D =1.0A		12	15	mΩ
		V _{GS} =4.5V,I _D =1.0A		17	24	mΩ
Drain-Source Diode Characteristics						
Drain-Source diode forward Voltage	V _{SD}	V _{GS} =0V,I _S =10A			1.2	V
Continuous drain-source diode forward current	I _S				30	A

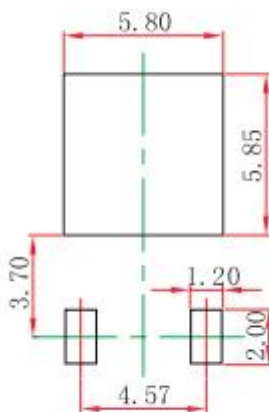
**30N06****N-Channel Mode Power MOSFET**

TO-252-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	4.460 REF.		0.1756 REF.	
L4	0.600	1.000	0.024	0.039
φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

TO-252-2L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.