

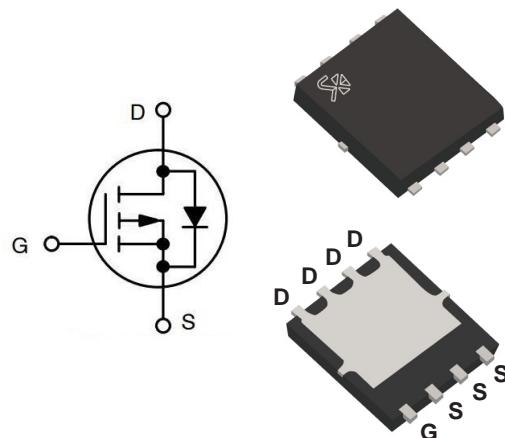
30V P-Channel MOSFET

Feature

- 30V P-Channel MOSFET High Dense Design.
- Ultra low On-Resistance.
- Reliable and Rugged.

Applications

- Power Management in Notebook Computer, and Portable Equipment and Battery Systems.



PDFN5060

Electrical Characteristics

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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	-30V	V
Gate-Source Voltage	V_{GSS}	$\pm 20\text{V}$	V
Drain Current-Continuous @ $T_c=25^\circ\text{C}$	I_D	-50	A
Drain Current-Pulsed	I_{DM}	-200	A
Operating Junction Temperature Range	T_J	-55 to 150°C	°C

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

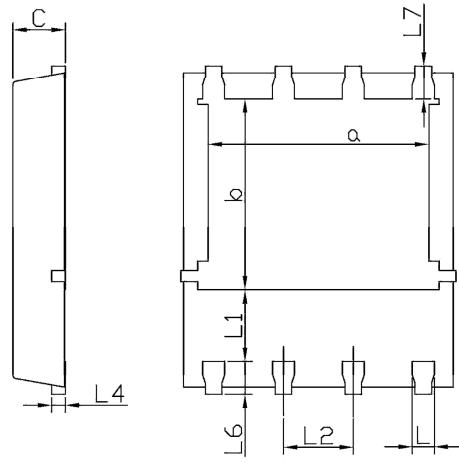
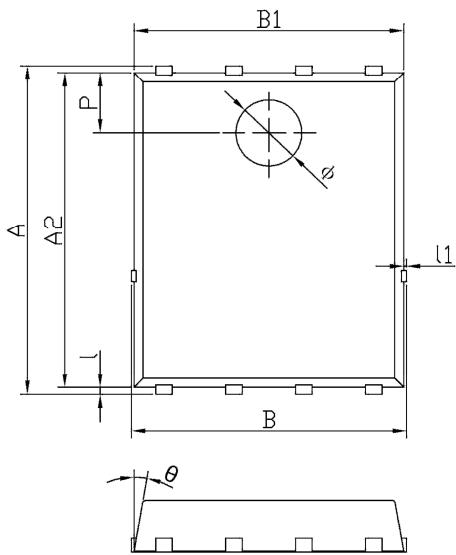
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTIC						
Drain-Source Breakdown Voltage	B_{VDSS}	$V_{GS}=0\text{V}$, $I_D=-250\mu\text{A}$	-30	-	-	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS}=-30\text{V}$, $V_{GS}=0\text{V}$, $T_J=25^\circ\text{C}$	-	-	-1	μA
Drain-Source Leakage Current	I_{DSS}	$V_{DS}=-24\text{V}$, $V_{GS}=0\text{V}$, $T_J=125^\circ\text{C}$	-	-	-10	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 20\text{V}$, $V_{DS}=0\text{V}$	-	-	± 100	nA
ON CHARACTERISTIC						
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}$, $I_D=250\mu\text{A}$	-1.2	-1.6	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=-10\text{V}$, $I_D=10\text{A}$	-	7.1	8.5	$\text{m}\Omega$
		$V_{GS}=-4.5\text{V}$, $I_D=8\text{A}$	-	11.5	14	
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}	$V_{DS}=-15\text{V}$, $V_{GS}=0\text{V}$, $f=1\text{MHz}$	-	3300	-	pF
Output Capacitance	C_{oss}		-	410	-	
Reverse Transfer Capacitance	C_{rss}		-	280	-	

NOTE:

1. The data tested by pulsed, pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.
2. $R_{DS(on)}$ calculated by - package type.

PDFN5060

Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	5.90	6.00	6.10
a	3.91	4.01	4.11
A2	5.70	5.75	5.80
B	4.90	5.00	5.10
b	3.37	3.47	3.57
B1	4.80	4.90	5.00
C	0.90	0.95	1.00
L	0.35	0.40	0.45
l	0.06	0.13	0.20
L1	1.10	-	-
l1	-	-	0.10
L2	1.17	1.27	1.37
L4	0.21	0.26	0.34
L6	0.51	0.61	0.71
L7	0.51	0.61	0.71
P	1.00	1.10	1.20
θ	8°	10°	12°
ϕ	1.10	1.20	1.30