20V P-Channel Enhancement Mode MOSFET

Description

The NP2307DR uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and operation with gate voltages as low as 1.8V. This device is suitable for use as a load switch or in PWM applications.

General Features

V_{DS} =-20V I_D =-8A

$R_{DS(ON)}$(Typ.)=15.6mΩ @V_{GS}=-4.5V

$R_{DS(ON)}$(Typ.)=20mΩ @V_{GS}=-2.5V

High power and current handing capability

Lead free product is acquired

Surface mount package

Application

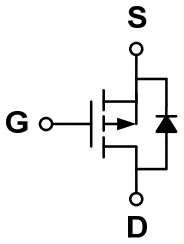
PWM applications

Load switch

Package

DFN2*2-6L-B

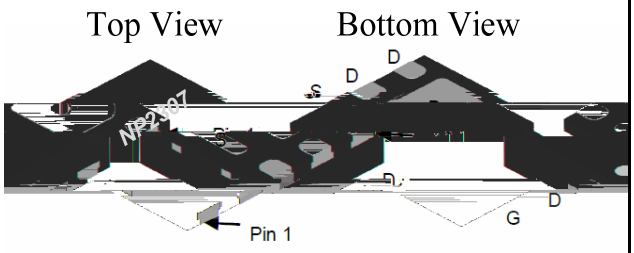
Schematic diagram



Marking and pin assignment

DFN2*2-6L-B

Thickness 0.55mm



NP----Natlinear Power

2307----NP2307

Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
NP2307DR-G	-55°C to +150°C	DFN2*2-6L-B	4000

Absolute Maximum Ratings (TA=25℃ unless otherwise noted)

parameter		symbol	limit	unit
Drain-source voltage		V_{DS}	-20	V
Gate-source voltage		V_{GS}	±12	V
Drain current-continuous	T_C=25℃	I_D	-8[a]	A
	T_C=70℃		-8[a]	
	T_A=25℃		-8[a,b,c]	
	T_A=70℃		-6[b,c]	
Drain-source Diode forward current	T_C=25℃	Is	-8[a]	A
	T_A=25℃		-2.9[b,c]	

Typical Performance Characteristics

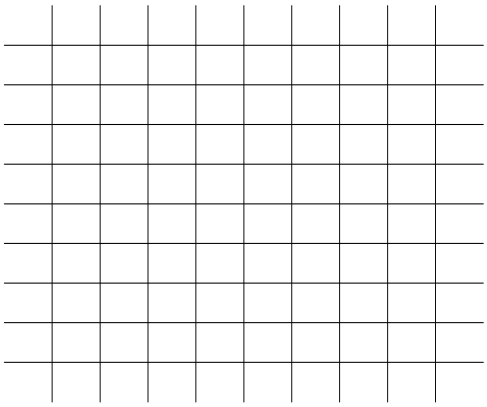


Fig1 Output Characteristics

Fig2 Transfer Characteristics

Fig3 Rdson-Drain current

Fig4 Capacitance vs Vds

Fig5 Rdson-Gate Drain voltage

Fig6 Gate Charge

Package Information

DFN2*2-6L-B 0



SIDE VIEW