Description

The NP2302FHR uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and high density cell Design for ultra low on-resistance. This device is suitable for use as a load switch or in PWM applications.

General Features

V_{DS} =20V I_D =3A

$R_{DS(ON)}$(Typ.)=45mΩ @V_{GS}=4.5V

$R_{DS(ON)}$(Typ.)=73mΩ @V_{GS}=2.5V

High power and current handing capability

Lead free product is acquired

Surface mount package

Application

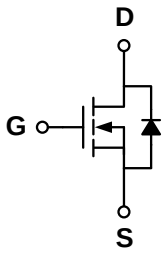
PWM applications

Load switch

Package

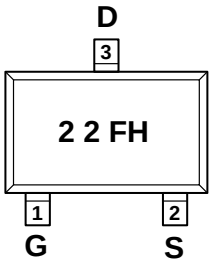
ESOT-23-3L

Schematic diagram



Marking and pin assignment

ESOT-23-3L
(TOP VIEW)



Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
NP2302FHR-G	-55°C to +150°C	ESOT-23-3L	3000

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

Typical Performance Characteristics

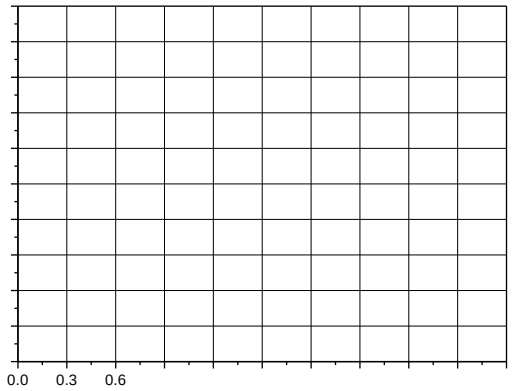


Fig1 Output Characteristics

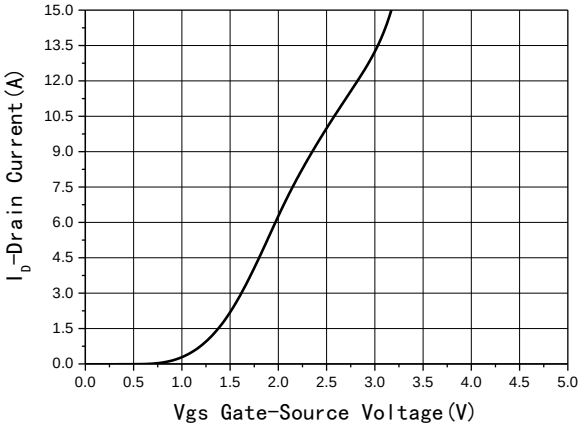


Fig2 Transfer Characteristics

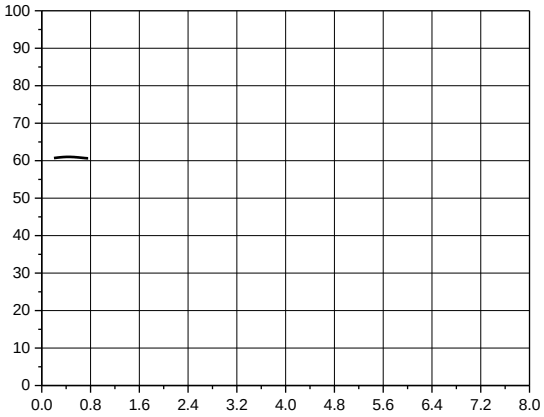


Fig3 Rdson-Drain current

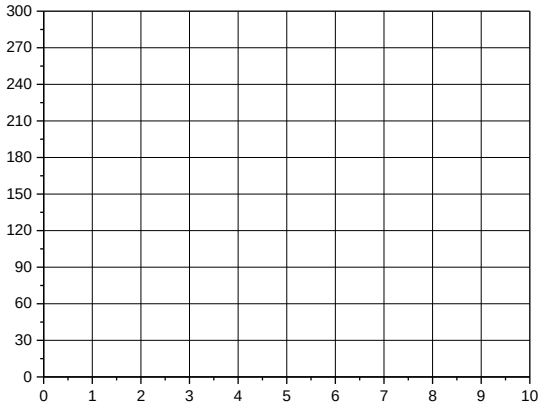


Fig4 Capacitance vs Vds

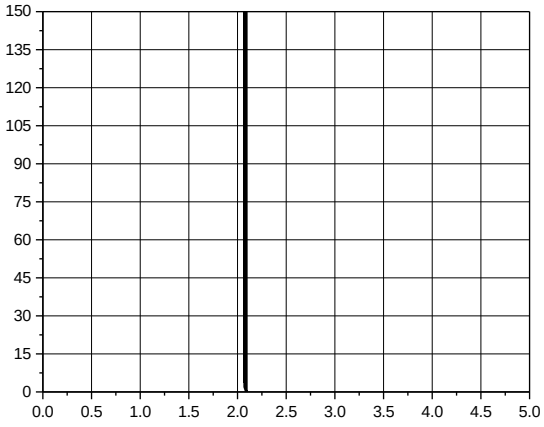


Fig5 Rdson-Gate Drain voltage

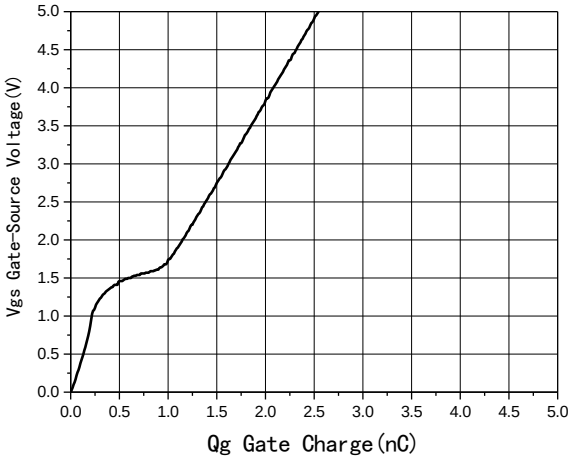


Fig6 Gate Charge

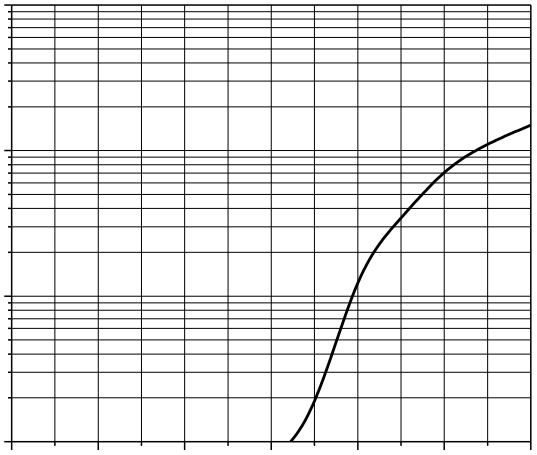
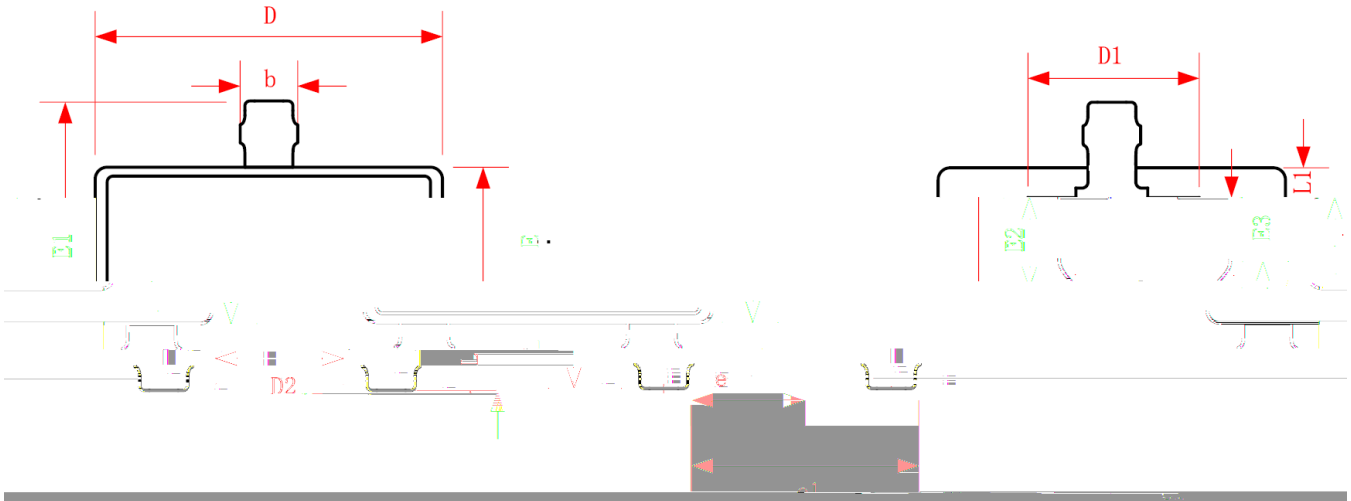


Fig7 Power De-rating

Fig8 Source-Drain Diode Forward

Package Information

ESOT-23-3L



Symbol	Dimensions In Millimeters		
	Min.	REF.	Max.
A	0.500	0.550	0.600
A1	0.368	0.398	0.428

0.000	0.030		A2	-0.030	
0.152Ref					

(贝祝图)

1.350	E	1.250	1.300
2.450	E1	2.350	2.400
1.455	D1	1.405	1.430
1.045	D2	0.995	1.020

L	0.525	0.550	0.575
L1	0.235	0.260	0.285
	0.950Ref		
e1	1.800	1.900	2.000
b	0.410	0.480	0.550
θ	14°	15°	16°