Description

The NP2301F uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and operation with

Electrical Characteristics (TA=25 unless otherwise noted)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
OFF Characteristics						
Drain-source breakdown voltage	BV_{DSS}	V_{GS}=0V, I_D=-250μA	-20	-	-	V
Zero gate voltage drain current	I_{DSS}	V_{DS}=-20V, V_{GS}=0V	-	-	-1	μA
Gate-body leakage	I_{GSS}	V_{DS}=0V, V_{GS}=±12V	-	-	±100	nA
ON Characteristics						
Gate threshold voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=-250μA				

Typical Performance Characteristics

Fig1 Output Characteristics

Fig2 Transfer Characteristics

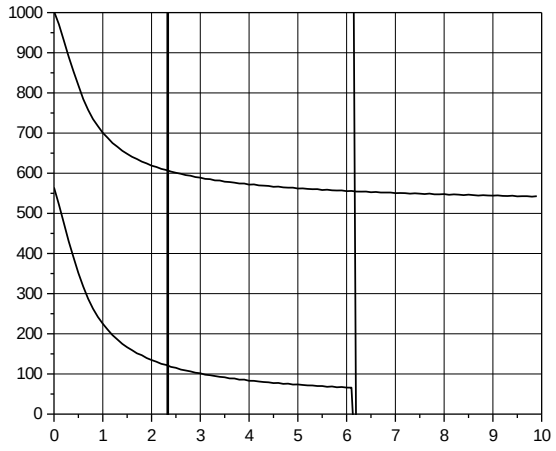


Fig3 Rdson-Drain current

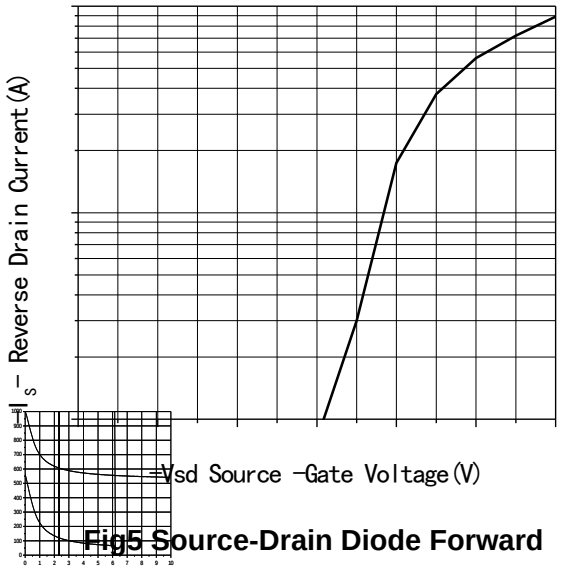


Fig4 Capacitance vs Vds

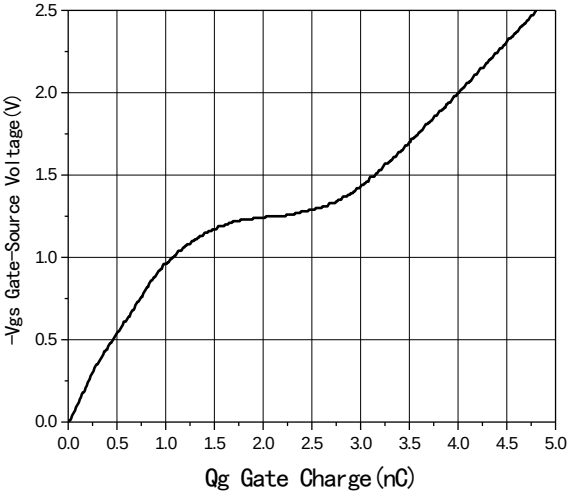


Fig5 Source-Drain Diode Forward

Fig6 Gate Charge

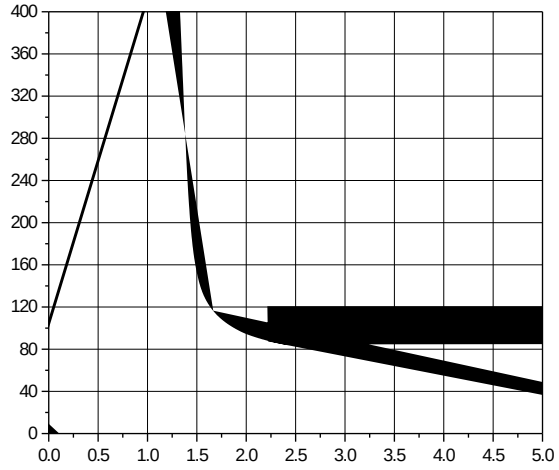


Fig7 Rdson-Gate Drain voltage

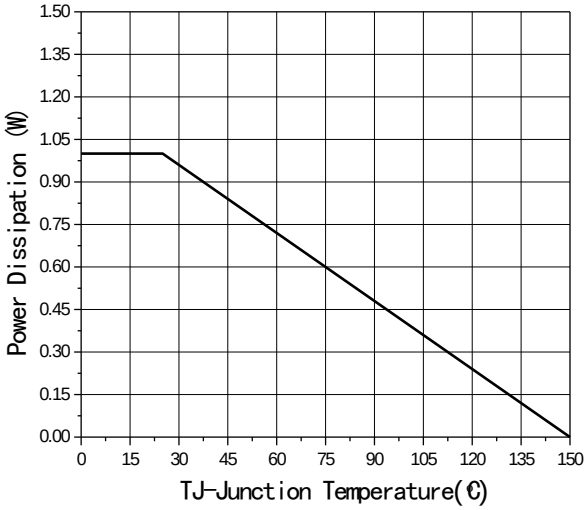
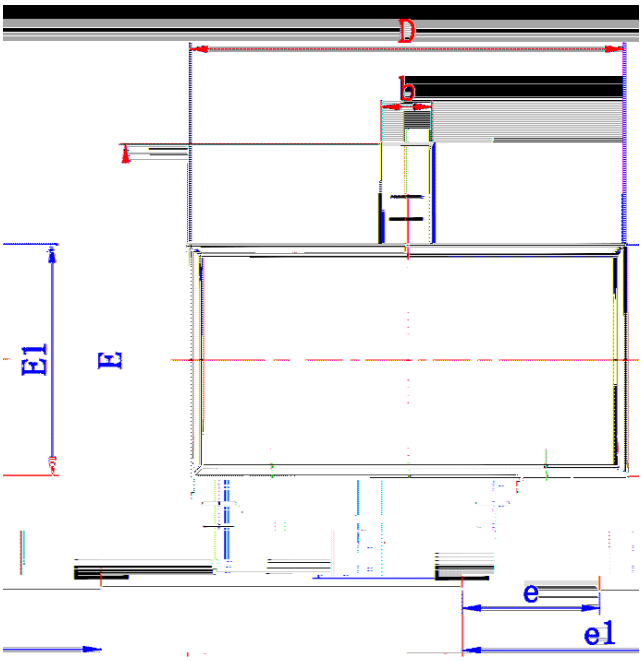
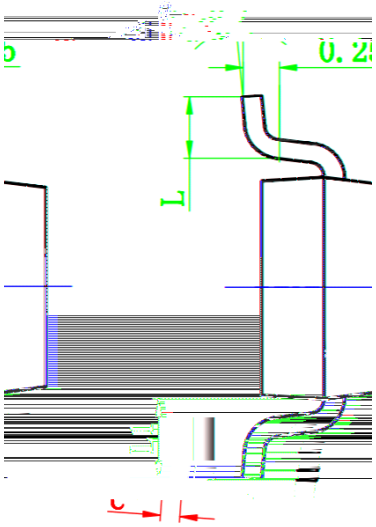


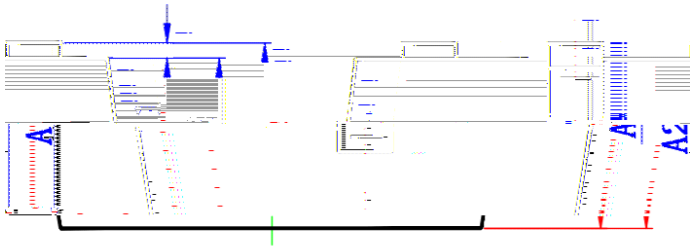
Fig8 Power De-rating

Package Information

SOT-23







Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.889	1.295	0.035	0.051
A1	0.000	0.152	0.000	0.006
A2	0.889	1.143	0.035	0.045
b	0.300	0.500	0.012	0.020
c	0.080	0.254	0.003	0.010
D	2.800	3.000	0.110	0.118
E	2.100	2.500	0.083	0.098
E1	1.200	1.400	0.047	0.055
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.300	0.500	0.012	0.020
L1	0.550 REF.		0.022 REF.	
θ	0°	8°	0°	8°