STJ828SF

P-Channel Enhancement-Mode MOSFET

Description

- High speed switching application.
- Analog switch applications.

Features

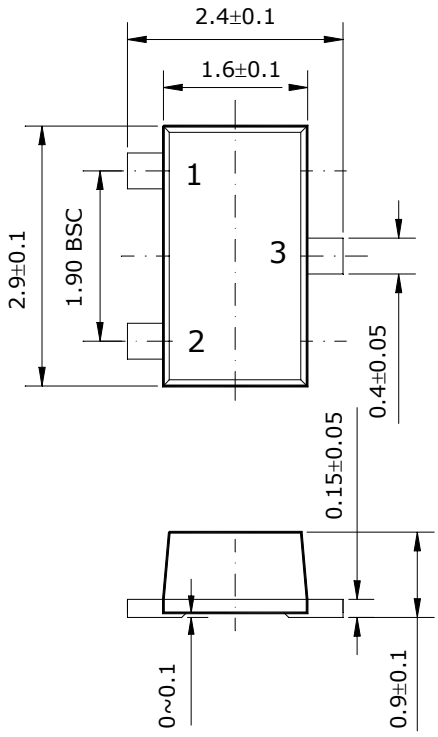
- -2.5V Gate drive.
- Low threshold voltage : Vth = -0.5~ -1.5V.
- High speed.

Ordering Information

Type NO.	Marking	Package Code
STJ828SF	J28	SOT-23F

Outline Dimensions

unit : mm



PIN Connections
1. Gate
2. Source
3. Drain

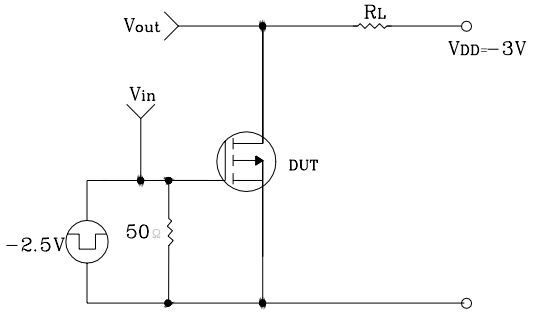
Absolute maximum ratings (Ta=25°C)

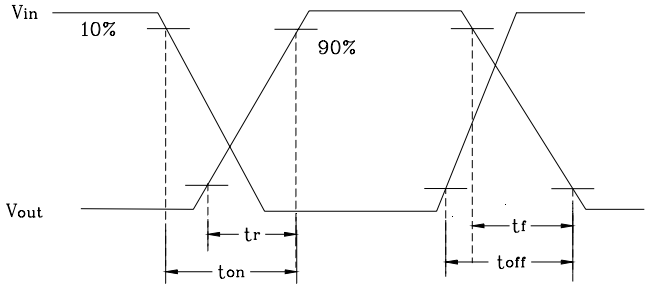
Characteristic	Symbol	Ratings	Unit
Drain-Source voltage	V_{DS}	-20	V
Gate-Source voltage	V_{GSS}	±7	V
DC Drain current	I_D	-50	mA
Drain Power dissipation	P_D	200	mW
Channel temperature	T_{ch}	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Drain-Source breakdown voltage	BV_{DSS}	I_D=-100μA, V_{GS}=0	-20	-		V
Gate-Threshold voltage	V_{th}	I_D=-0.1mA, V_{DS}=-3V	-0.5	-	-1.5	V
Drain cut-off current	I_{DSS}	V_{DS}=-20V, V_{GS}=0	-	-	-1	μA
Gate leakage current	I_{GSS}	V_{GS}=±7V, V_{DS}=0	-	-	±1	μA
Drain-Source on-resistance	$R_{DS(ON)}$	V_{GS}=-2.5V, I_D=-10mA	-		40	Ω
Forward transfer admittance	$\lvert Y_{fs} \rvert$	V_{DS}=-3V, I_D=-10mA	15	-	-	mS
Input capacitance	C_{iss}	V_{DS}=-3V, V_{GS}=0, f=1MHz	-	10.4	-	pF
Output capacitance	C_{oss}	V_{DS}=-3V, V_{GS}=0, f=1MHz	-	8.4	-	pF
Reverse Transfer capacitance	C_{rss}	V_{DS}=-3V, V_{GS}=0, f=1MHz	-	2.8	-	pF
Turn-on time	t_{ON}	V_{DD}=-3V, I_D=-10mA V_{GEN}=0~-2.5V	-	0.15	-	μs
Turn-off time	t_{OFF}	V_{DD}=-3V, I_D=-10mA V_{GEN}=0~-2.5V	-	0.13	-	μs

*. Switching Time Test Circuit





Electrical Characteristic Curves

Fig1 I_D - V_{DS}

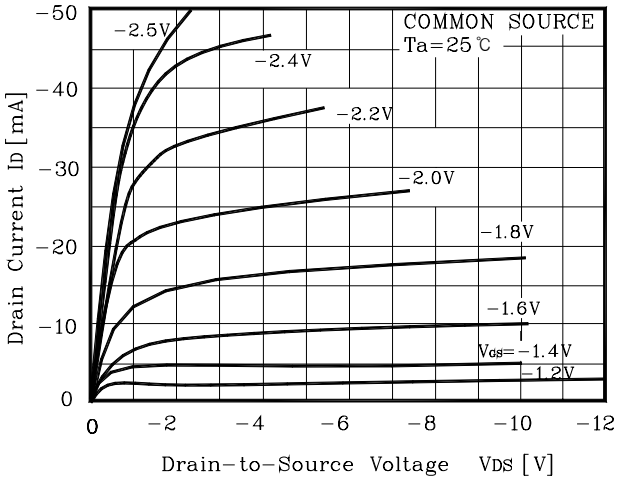


Fig2 I_D - V_{DS}

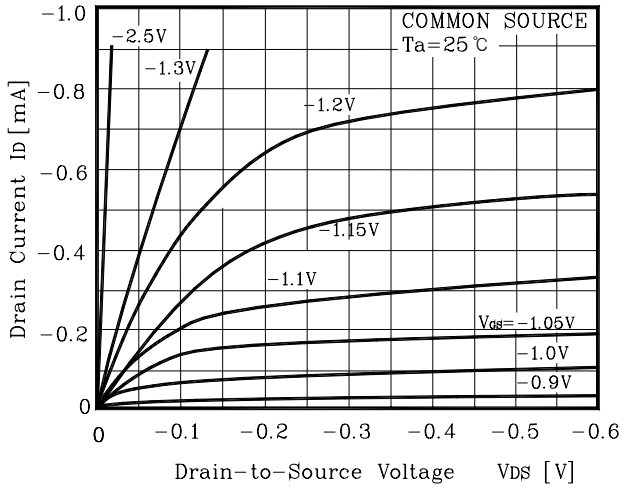


Fig3 I_{DR} - V_{DS}

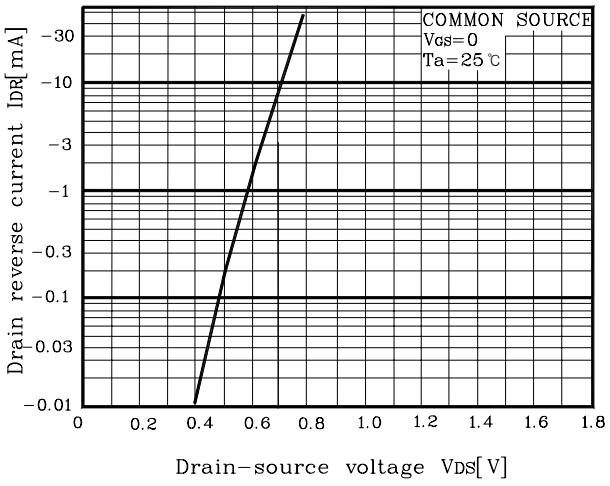


Fig4 I_D - V_{GS}

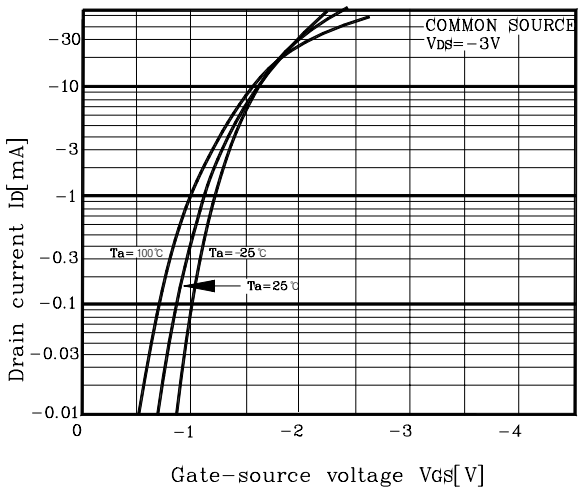


Fig5 $|Y_{fs}|$ - I_D

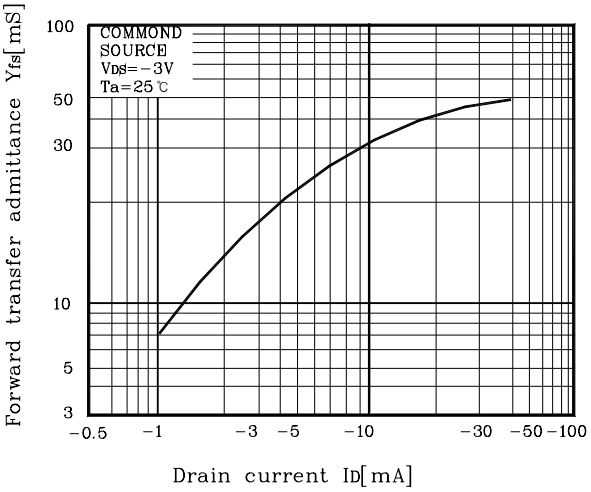


Fig6 C - V_{DS}

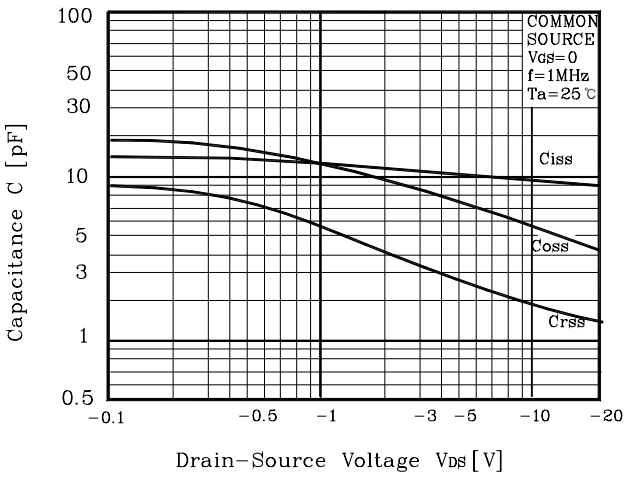


Fig7 $V_{DS(on)}$ - I_D

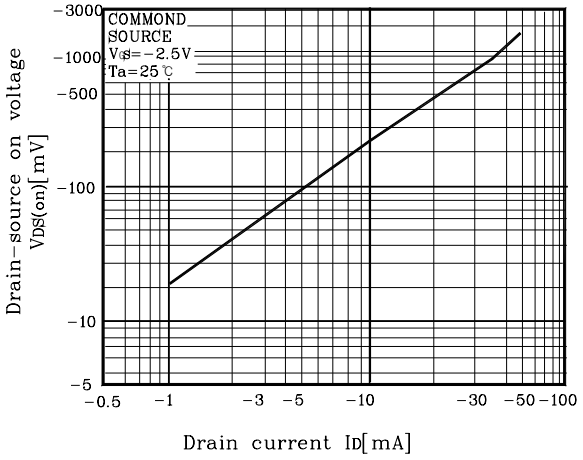


Fig8 t - I_D

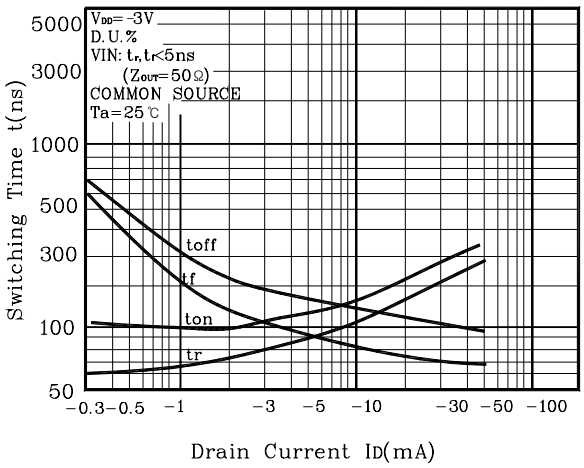


Fig9 P_D - T_a