AUK Semiconductor

SUF620EF

P-Channel Enhancement-Mode MOSFET

Description

- High speed switching application.
- Analog switch application.

Features

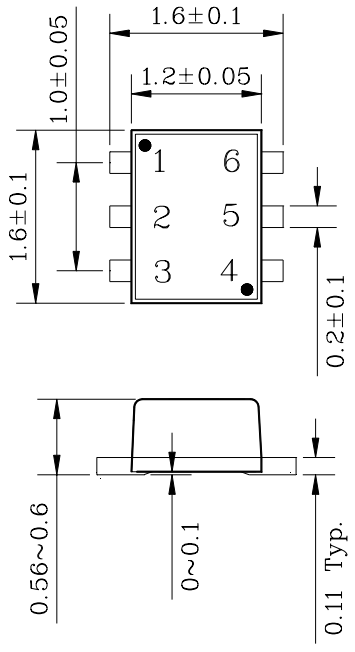
- Low threshold voltage
- Two STJ828 Chips in SOT-563F Package.

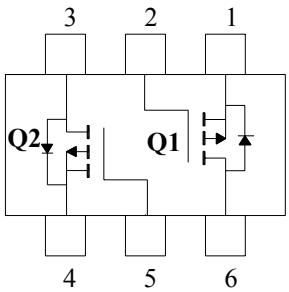
Ordering Information

Type NO.	Marking	Package Code
SUF620EF	X	SOT-563F

Outline Dimensions

unit : mm





PIN Connections

1. Source 1
2. Gate 1
3. Drain 2
4. Source 2
5. Gate 2
6. Drain1

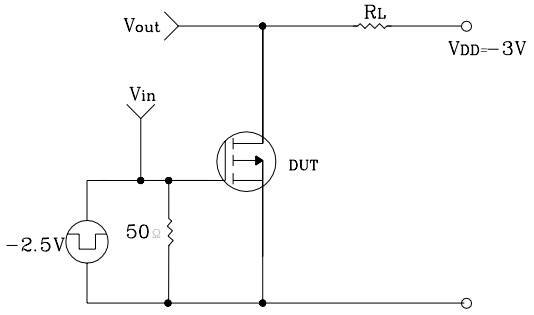
Absolute maximum ratings (Q1,Q2 Common) (Ta=25°C)

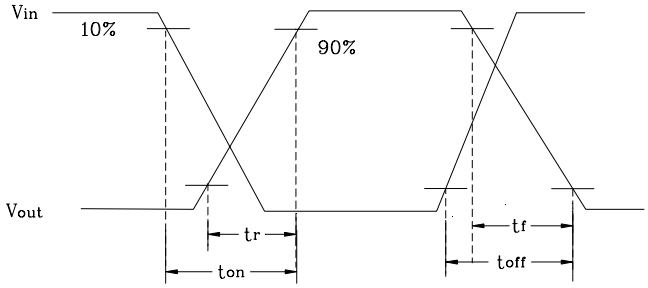
Characteristic	Symbol	Ratings	Unit
Drain-Source voltage	V_{DS}	-20	V
Gate-Source voltage	V_{GSS}	±7	V
DC Drain current	I_D	-50	mA
Drain Power dissipation	P_D	100	mW
Channel temperature	T_{ch}	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Electrical Characteristics (Q1,Q2 Common) (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Drian-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}

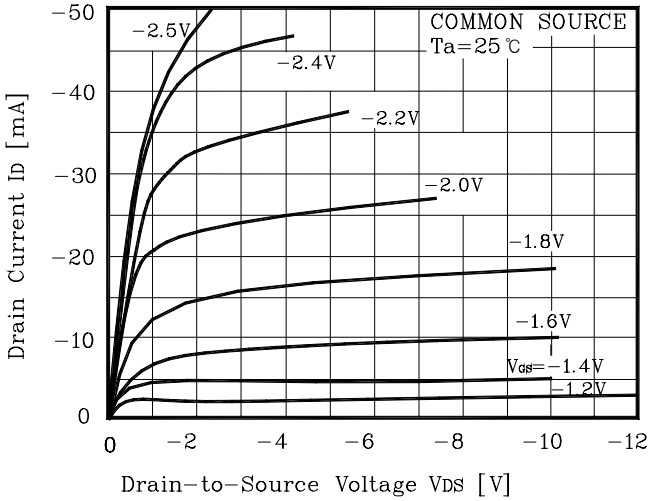


Fig2 I_D - V_{DS}

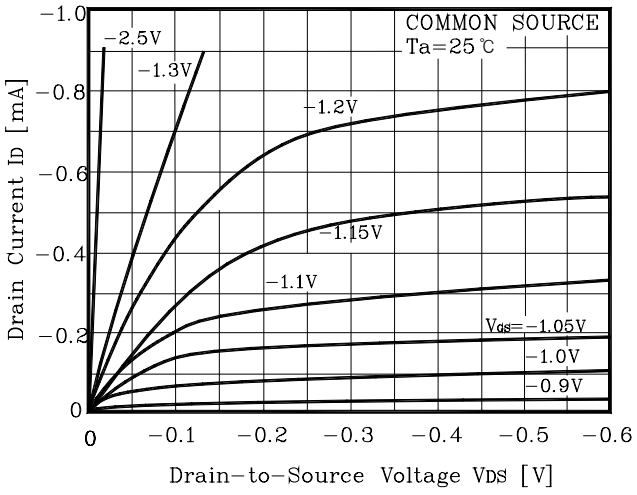


Fig3 I_{DR} - V_{DS}

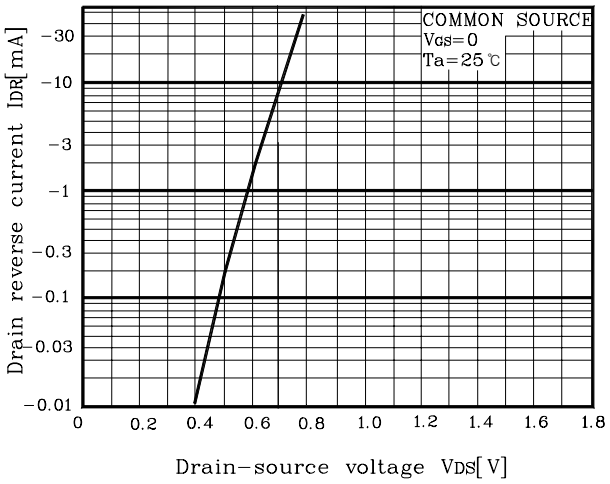


Fig4 I_D - V_{GS}

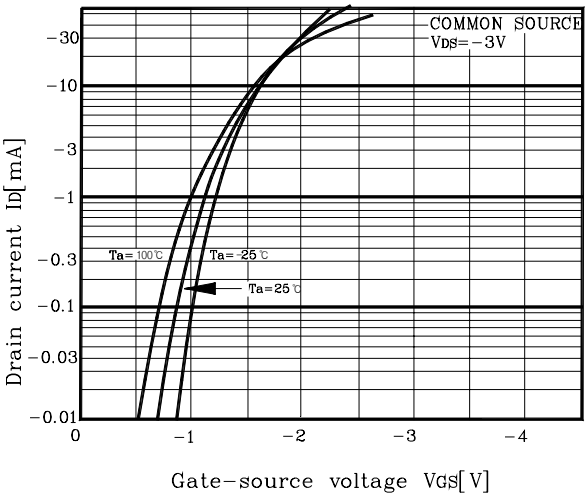


Fig5 $|Y_{fs}|$ - I_D

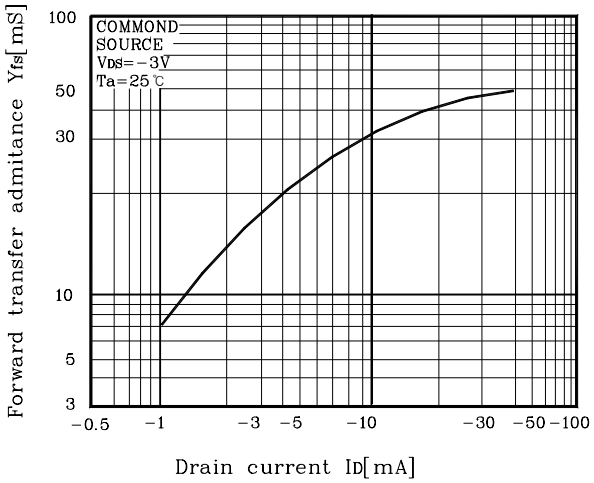


Fig6 C - V_{DS}

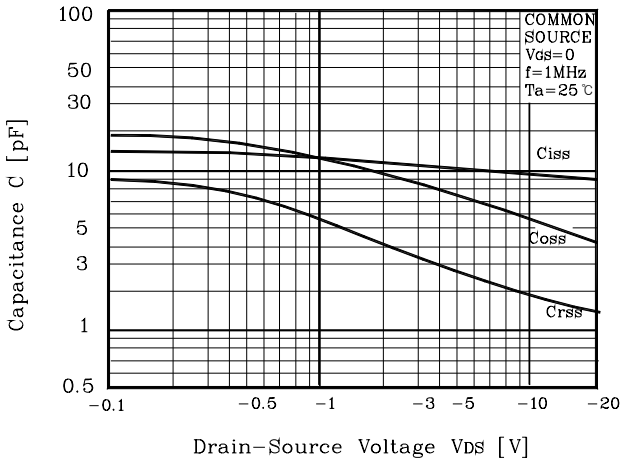


Fig7 $V_{DS(on)}$ - I_D

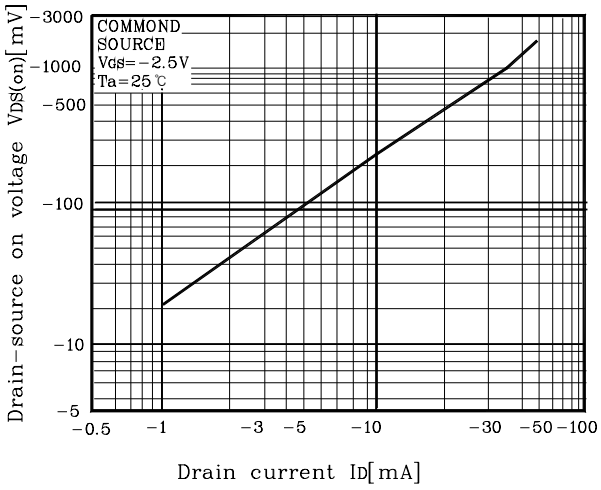


Fig8 t - I_D

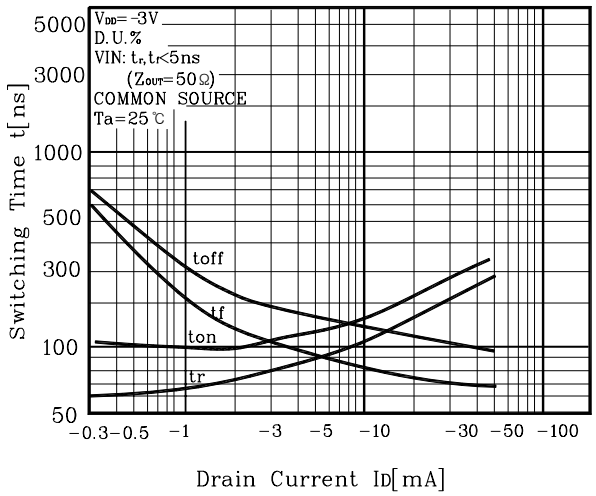


Fig9 P_D - T_a