

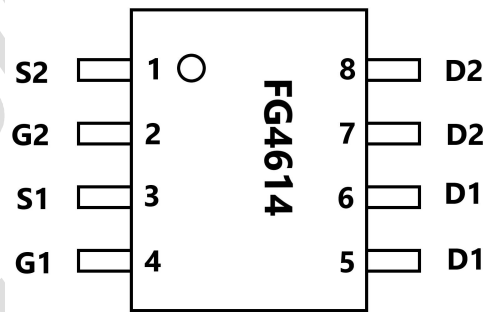
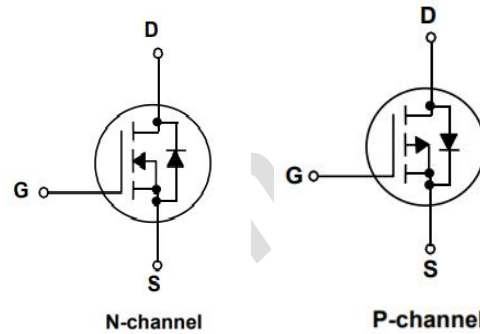
40V,互补高密度沟道 MOSFET

Features

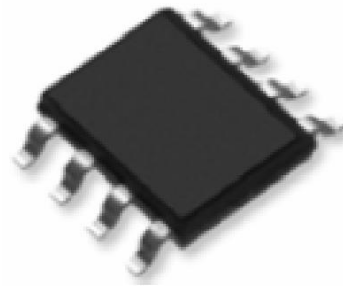
- **N-MOS**
 $V_{DS} = 40V$, $I_D = 9A$
 $R_{DS(on)Typ} = 20m\Omega @ V_{GS} = 10V$
 $R_{DS(on)Typ} = 23m\Omega @ V_{GS} = 4.5V$
- **P-MOS**
 $V_{DS} = -40V$, $I_D = -15A$
 $R_{DS(on)Typ} = 30m\Omega @ V_{GS} = -10V$
 $R_{DS(on)Typ} = 41m\Omega @ V_{GS} = -4.5V$
- **Very Low On-resistance $R_{DS(ON)}$**
- **Low C_{rss}**
- **Fast switching**
- **Improved dv/dt capability**

Application

- **PWM Application**
- **Load Switch**
- **Power Module**



引脚定义



SOP-8 top view

Mechanical Data

	NMOS	PMOS
Nominal Back Metal Composition,Thickness	Ti-Ni-Ag,(1kA°-2kA°-10kA°)	Ti-Ni-Ag,(1kA°-2kA°-10kA°)
Nominal Front Metal Composition,Thickness	AlCu(4μm)	ALCU(4um)
Wafer Diameter	200mm, with 010 notch	300 mm, with 010 notch
Wafer Thickness	150μm	100 um+-10um
Scribe line width	60μm	60μm
Passivation	USG+SiN	TEOS4K+SIN8K

N-MOS Key Electrical Characteristics

Parameter	Description	Min.	Typ.	Max.	Unit	Test Condition
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	40	47	--	V	$V_{GS} = 0V, I_D = 250\mu A$
$I_{D(Device Ref)}$	Continuous Drain Current	--	--	9	A	$T_C = 25^\circ C$
$R_{DS(on)(CP)}$	Static Drain-to-Source On-Resistance	--	17	21	m Ω	$V_{GS} = 10V, I_D = 1.0A$
		--	20	38	m Ω	$V_{GS} = 4.5V, I_D = 1.0A$
$R_{DS(on)(FT)}$	Static Drain-to-Source On-Resistance	--	20	26	m Ω	$V_{GS} = 10V, I_D = 4A$
		--	23	36	m Ω	$V_{GS} = 4.5V, I_D = 3A$
$V_{GS(th)}$	Gate Threshold Voltage	1.0V	1.3	1.9	V	$V_{DS} = V_{GS}, I_D = 250\mu A$
I_{DSS}	Drain-to-Source Leakage Current	--	--	1	μA	$V_{DS} = 40V, V_{GS} = 0V$
I_{GSS}	Gate-to-Source leakage Current	--	--	± 100	nA	$V_{DS} = 0V, V_{GS} = \pm 20V$
T_J, T_{STG}	Operating and Storage Temperature	-55 $^\circ C$ to 150 $^\circ C$ Max				

P-MOS Key Electrical Characteristics

Parameter	Description	Min.	Typ.	Max.	Unit	Test Condition
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	-40	-45	--	V	$V_{GS} = 0V, I_D = -250\mu A$
$I_{D(Device Ref)}$	Continuous Drain Current	--	--	-15	A	$T_C = 25^\circ C$
$R_{DS(on)(CP)}$	Static Drain-to-Source On-Resistance	--	28.5	34.5	m Ω	$V_{GS} = -10V, I_D = -1.0A$
		--	39.5	51.5	m Ω	$V_{GS} = -4.5V, I_D = -1.0A$
$R_{DS(on)(FT)}$	Static Drain-to-Source On-Resistance	--	30	40	m Ω	$V_{GS} = -10V, I_D = -15A$
		--	41	53	m Ω	$V_{GS} = -4.5V, I_D = -10A$
$V_{GS(th)}$	Gate Threshold Voltage	-1.0	-1.7	-2.5	V	$V_{DS} = V_{GS}, I_D = 250\mu A$
I_{DSS}	Drain-to-Source Leakage Current	--	--	-1.0	μA	$V_{DS} = -40V, V_{GS} = 0V$
I_{GSS}	Gate-to-Source leakage Current	--	--	± 100	nA	$V_{GS} = \pm 20V, V_{DS} = 0V$

N-Channel Typical Characteristics

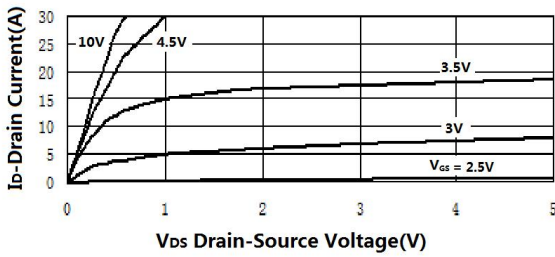


Fig.1 Typical Output Characteristics

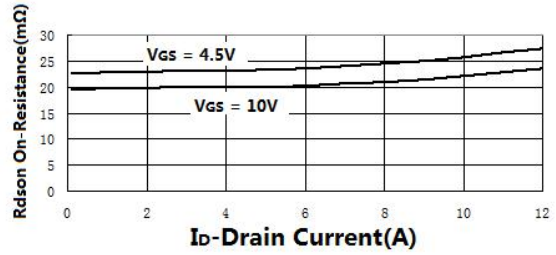


Fig.2 Drain-Source On-Resistance

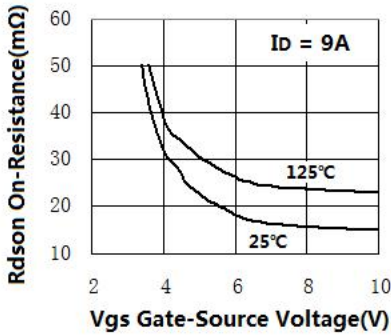


Fig.3 Rds(on) vs Vgs

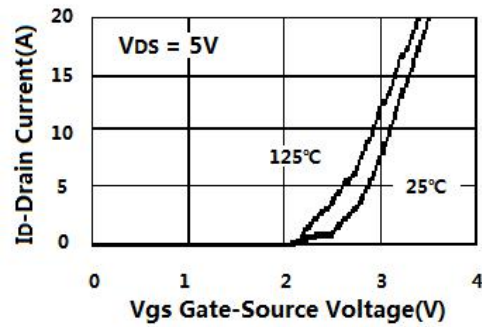


Fig.4 Transfer Characteristics

P-Channel Typical Characteristics

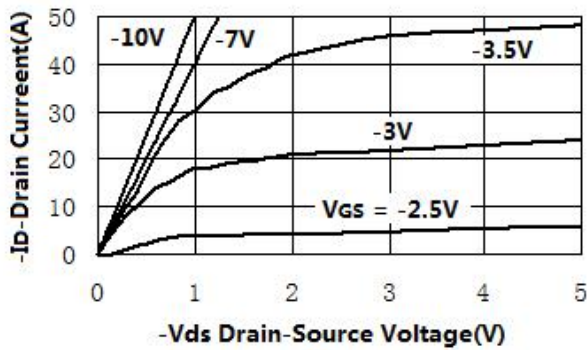


Fig.1 Typical Output Characteristics

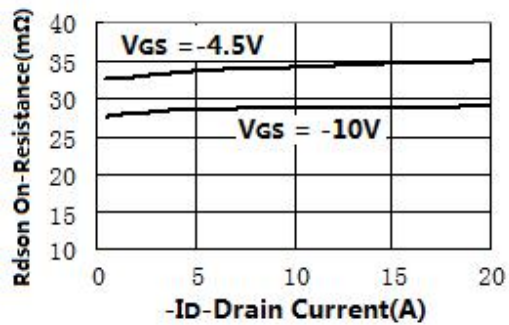


Fig.2 Rds(on)-Drain Current

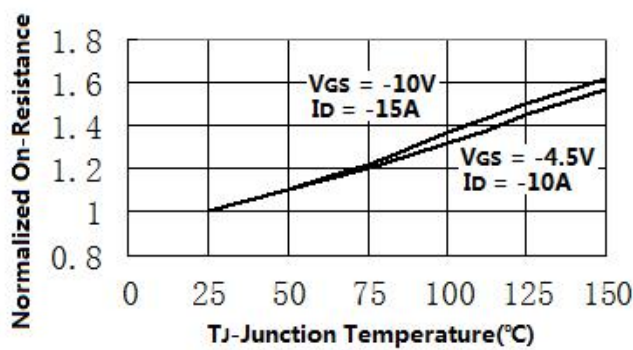


Fig.3 Rds(on)-Junction Temperature

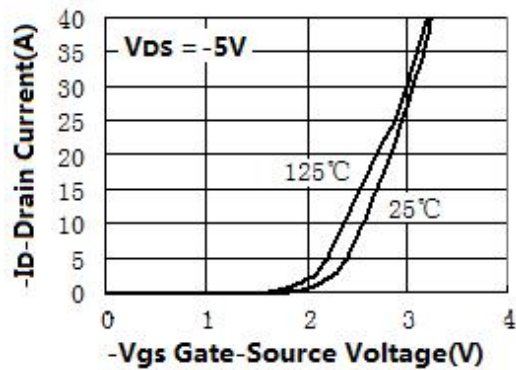


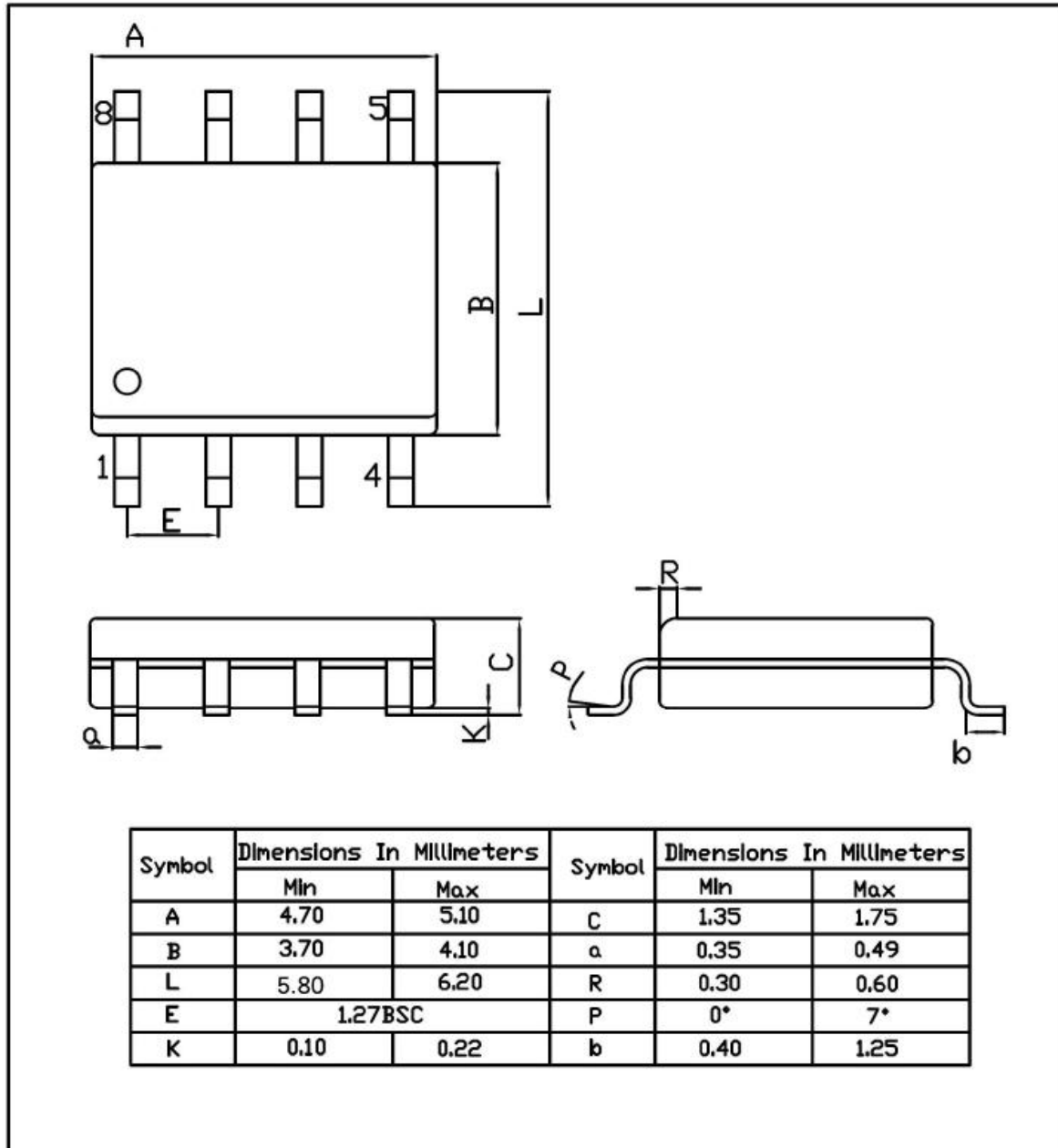
Fig.4 Transfer Characteristics

SOP-8 封装信息

SOP-8 外形尺寸图

SOP-8

Unit:mm



联系方式

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