Ordering number : EN 4635

SANYO

No.4635

2SK1840

N-Channel Enhancement MOS Silicon FET

Analog Switch Applications

Features

- Large $|y_{fs}|$.
- Enhancement type.
- Low ON resistance.

Absolute Maximum Ratings at Ta = 25°C

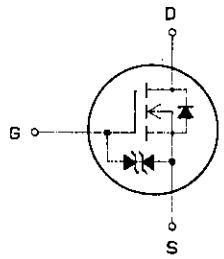
			unit
Drain-to-Source Voltage	V_{DSS}	30	V
Gate-to-Source Voltage	V_{GSS}	±12	V
Drain Current(DC)	I_D	100	mA
Drain Current(Pulse)	I_{DP}	300	mA
Allowable Power Dissipation	P_D	200	mW
Channel Temperature	Tch	125	°C
Storage Temperature	Tstg	−55 to +125	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 10\mu A, V_{GS} = 0$	30			V
Drain Current	I_{DSS}	$V_{DS} = 15V, V_{GS} = 0$			1	μA
Gate Cutoff Current	I_{GSS}	$V_{GS} = \pm 10V, V_{DS} = 0$		0.01	±10	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 100\mu A$	0.3	0.9	1.5	V
Forward Transfer Admittance	$\|y_{fs}\|$	$V_{DS} = 10V, I_D = 50mA, f = 1kHz$	25	50		mS
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 10mA$		15	25	Ω
Input Capacitance	Ciss	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		12		pF
Output Capacitance	Coss	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		4		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		0.4		pF

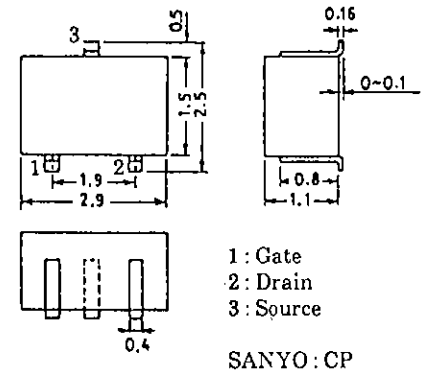
Marking : JJ

Electrical Connection



Package Dimensions 2024B

(unit : mm)



1 : Gate
2 : Drain
3 : Source

SANYO : CP

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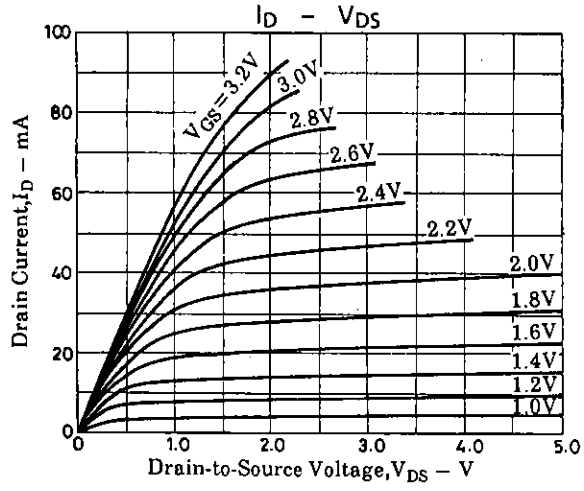
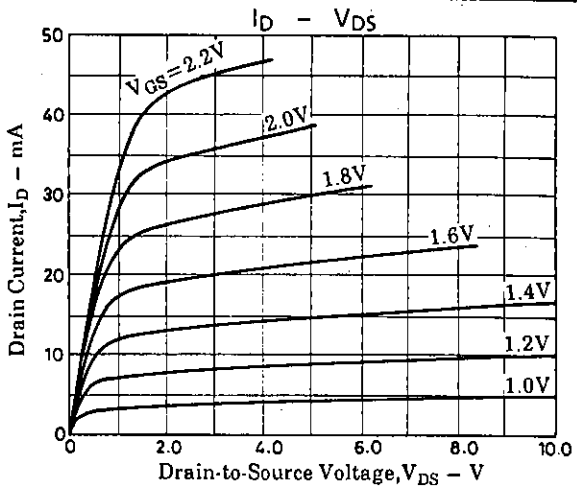
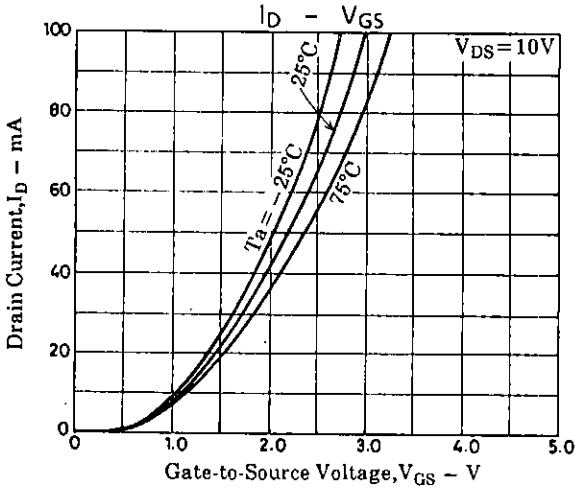
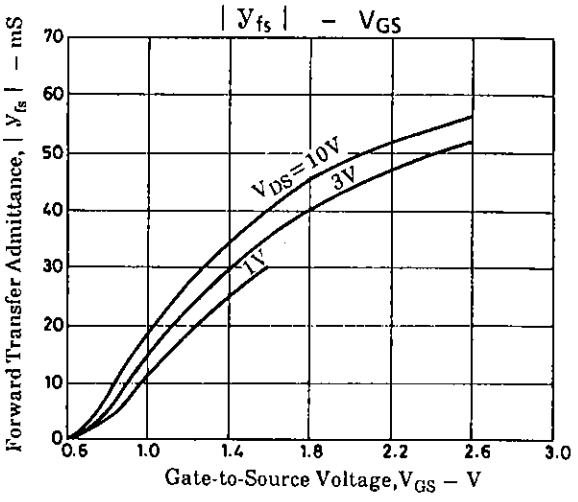
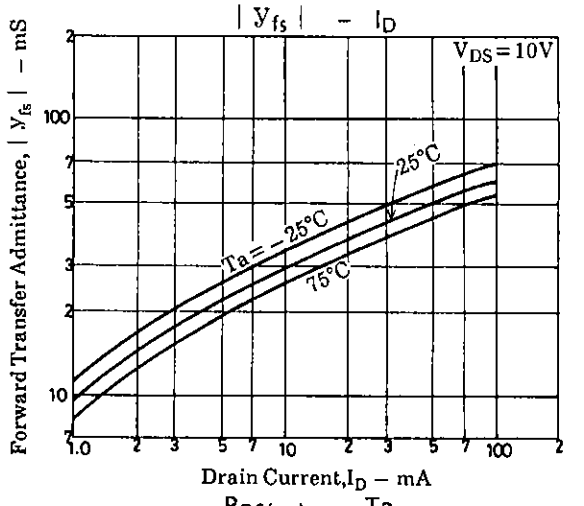
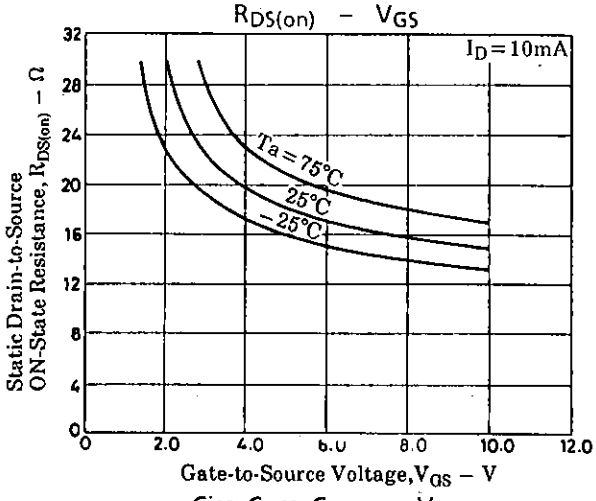

I_D – V_{DS}
Drain Current, I_D – mA
Drain-to-Source Voltage, V_{DS} – V
V_{GS}=3.2V
3.0V
2.8V
2.6V
2.4V
2.2V
2.0V
1.8V
1.6V
1.4V
1.2V
1.0V

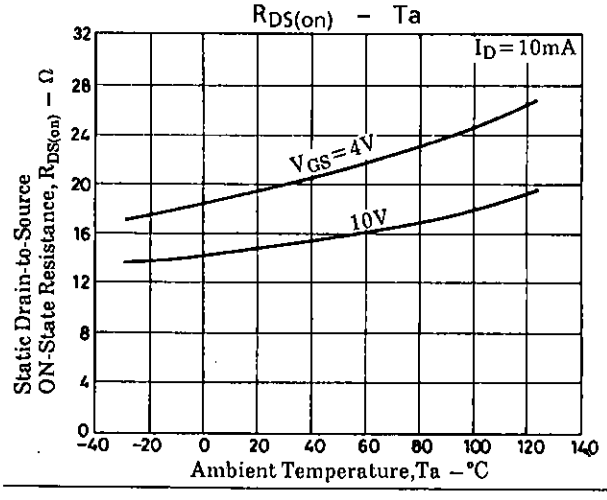

I_D – V_{DS}
Drain Current, I_D – mA
Drain-to-Source Voltage, V_{DS} – V
V_{GS}=2.2V
2.0V
1.8V
1.6V
1.4V
1.2V
1.0V

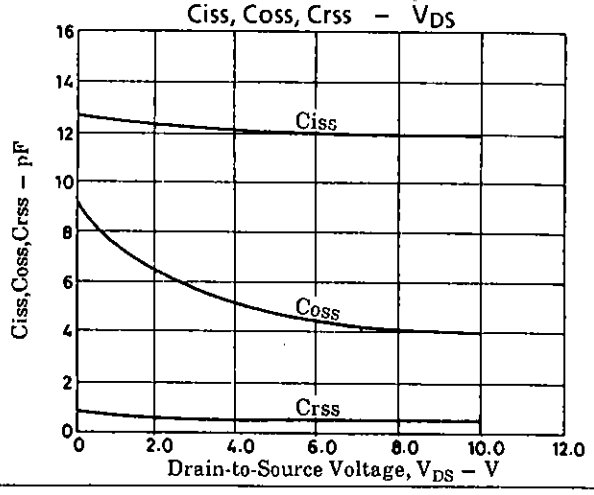

I_D – V_{GS}
Drain Current, I_D – mA
Gate-to-Source Voltage, V_{GS} – V
V_{DS}=10V
25°C
Ta=–25°C
75°C


$|y_{fs}|$ – V_{GS}
Forward Transfer Admittance, $|y_{fs}|$ – mS
Gate-to-Source Voltage, V_{GS} – V
V_{DS}=10V
3V
1V


$|y_{fs}|$ – I_D
Forward Transfer Admittance, $|y_{fs}|$ – mS
Drain Current, I_D – mA
V_{DS}=10V
25°C
Ta=–25°C
75°C


$R_{DS(on)}$ – V_{GS}
Static Drain-to-Source ON-State Resistance, $R_{DS(on)}$ – Ω
Gate-to-Source Voltage, V_{GS} – V
I_D=10mA
Ta=75°C
25°C
–25°C


$R_{DS(on)}$ – Ta
Static Drain-to-Source ON-State Resistance, $R_{DS(on)}$ – Ω
Ambient Temperature, Ta – °C
I_D=10mA
V_{GS}=4V
10V


Ciss, Coss, Crss – V_{DS}
Ciss, Coss, Crss – pF
Drain-to-Source Voltage, V_{DS} – V
Ciss
Coss
Crss