

**2SK1841**

## Ultrahigh-Speed Switching, Analog Switch Applications

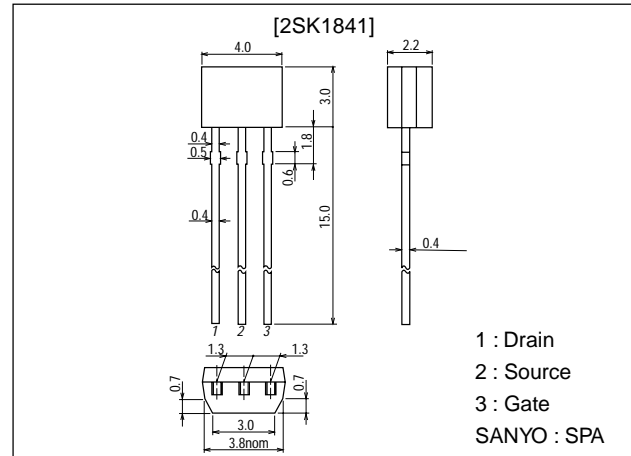
### Features

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

### Package Dimensions

unit:mm

2040A



### Specifications

#### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSS}$		30	V
Gate-to-Source Voltage	$V_{GSS}$		$\pm 12$	V
Drain Current (DC)	$I_D$		100	mA
Drain Current (pulse)	$I_{DP}$		300	mA
Allowable Power Dissipation	$P_D$		200	mW
Channel Temperature	$T_{ch}$		125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

#### Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=10\mu\text{A}, V_{GS}=0$	30			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=15\text{V}, V_{GS}=0$			1	$\mu\text{A}$
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 10\text{V}, V_{DS}=0$		0.01	$\pm 10$	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=100\mu\text{A}$	0.3	0.9	1.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10\text{V}, I_D=50\text{mA}, f=1\text{kHz}$	25	50		mS
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=10\text{mA}$		15	25	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		12		pF
Output Capacitance	$C_{oss}$	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		4		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		0.4		pF

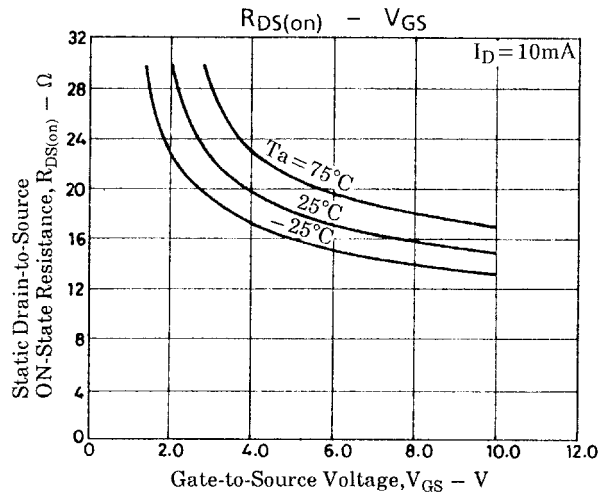
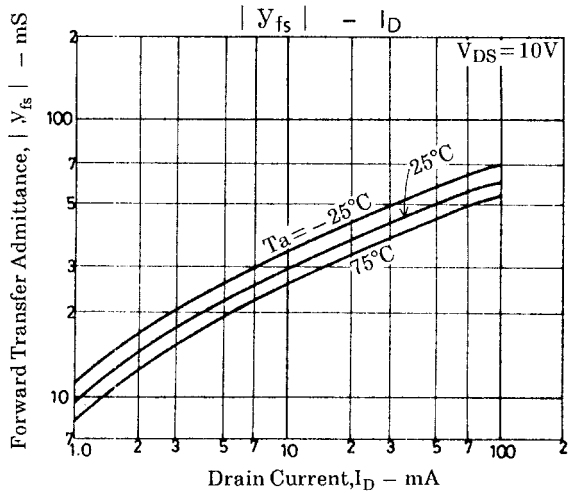
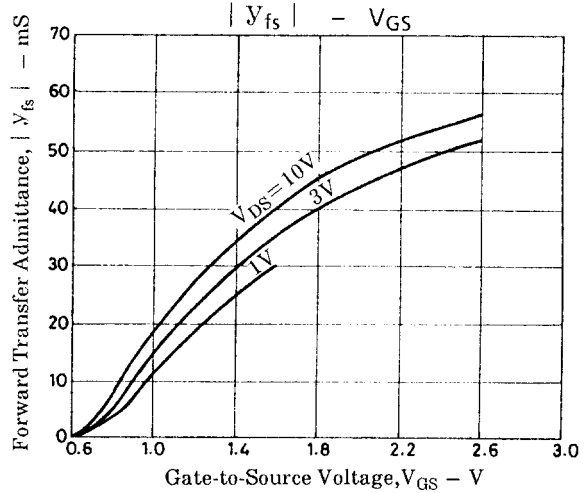
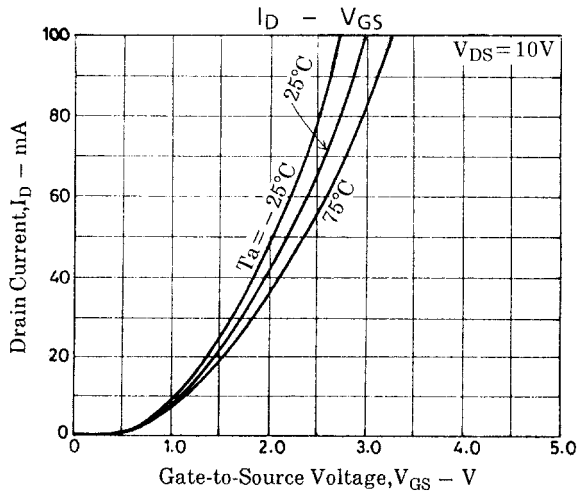
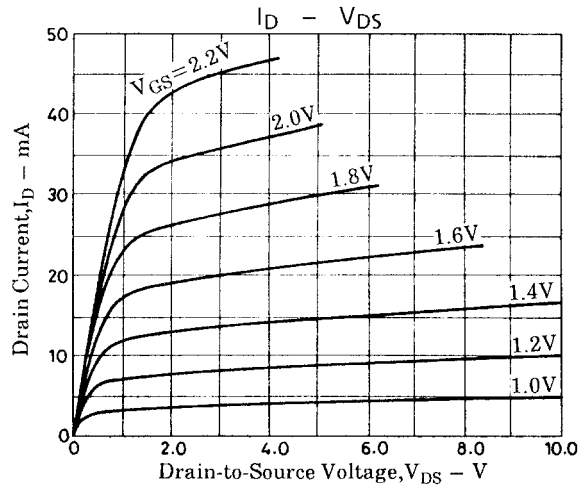
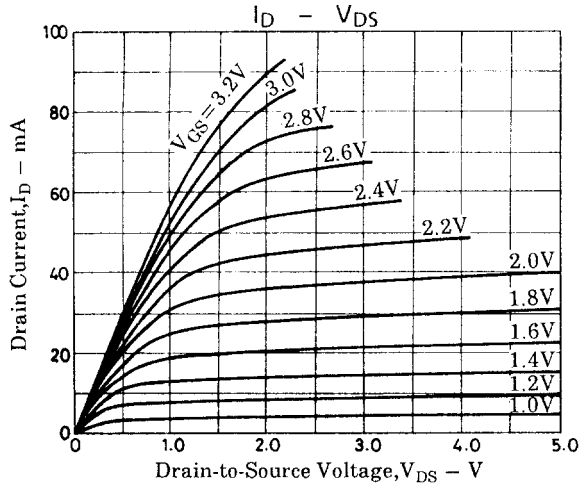
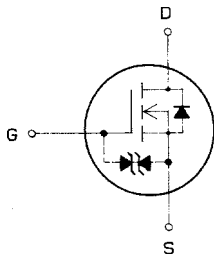
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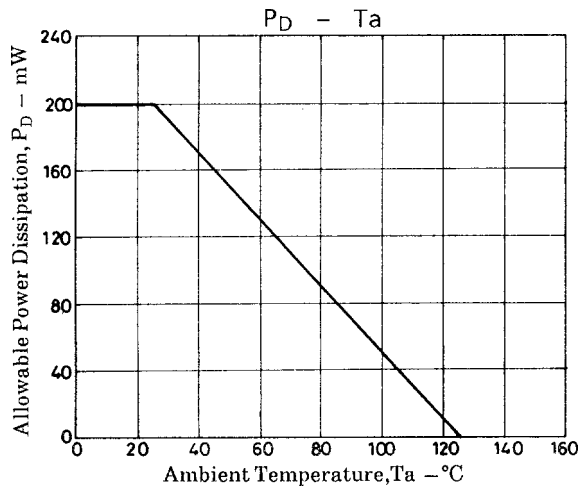
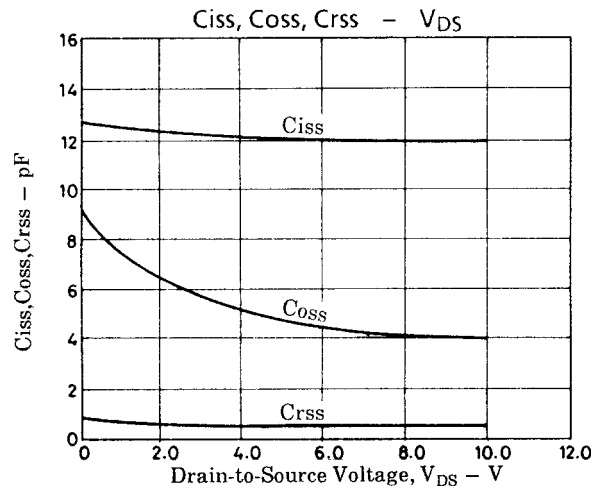
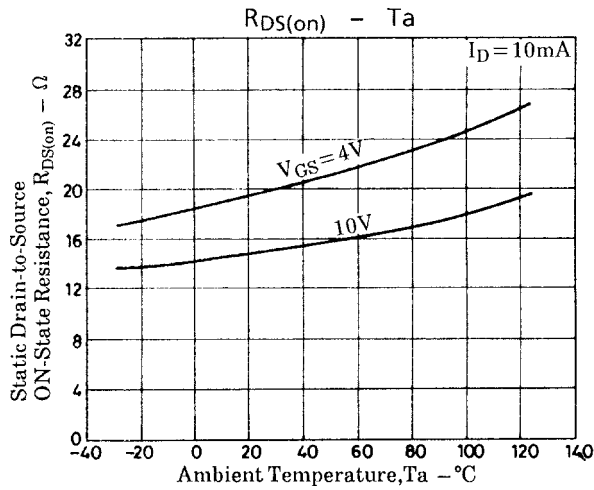
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Electrical Connection



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