



# **Analog Switch Applications**

## **Applications**

· Analog switches, low-pass filters.

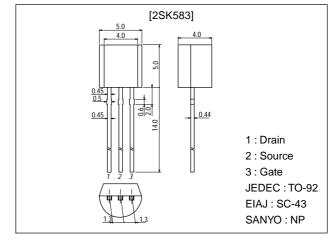
#### **Features**

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

### **Package Dimensions**

unit:mm

2005C



# **Specifications**

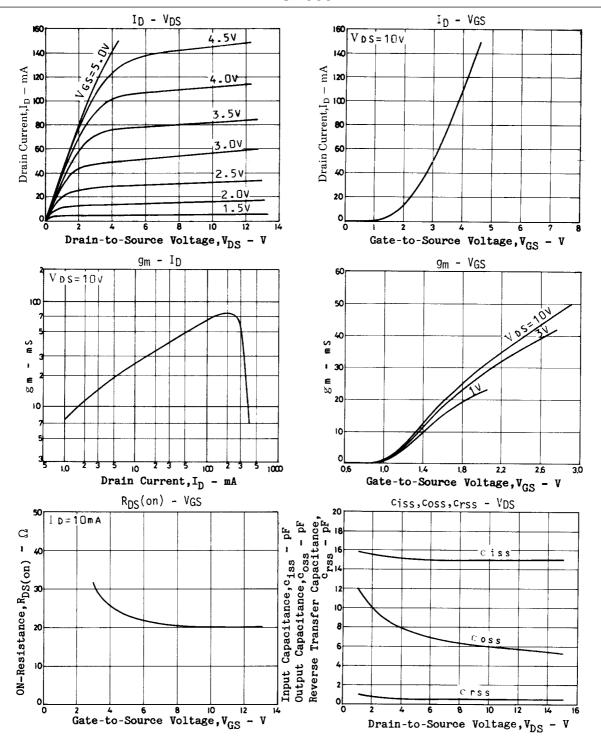
#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DS</sub>		50	V
Gate-to-Source Voltage	V <sub>GS</sub>		±12	V
Drain Current	I <sub>D</sub>		200	mA
Drain Current(Pulse)	I <sub>DP</sub>		300	mA
Allowable Power Dissipation	P <sub>D</sub>		600	mW
Channel Temperature	Tch		125	°C
Storage Temperature	Tstg		-55 to +125	°C

#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	V(BR)DS	I <sub>D</sub> =10μA, V <sub>GS</sub> =0V	50			V
Gate-to-Source Leakage Current	IGSS	V <sub>GS</sub> =10V, V <sub>DS</sub> =0V		0.01	10	nA
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	$V_{DS}$ =20V, $V_{GS}$ =0V			1	μΑ
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =100μA	0.3	0.9	1.5	V
Forward Transfer Admittance	yfs	V <sub>DS</sub> =10V, I <sub>D</sub> =50mA, f=1kHz	25	40		mS
Input Capacitance	Ciss	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz		15		pF
Output Capacitance	Coss	$V_{DS}$ =10V, $V_{GS}$ =0, f=1MHz		6		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz		0.5		pF
Drain-to-Source ON Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =10mA		20		Ω

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