Ordering number : ENN7224A

Discontinued

SANYO Semiconductors

DATA SHEET

N-Channel Silicon MOSFET

2SK3072 — General-Purpose Switching Device Applications

Features

- Ultrahigh-speed switching.
- Low-voltage drive.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		450	V
Gate-to-Source Voltage	V_{GSS}		±10	V
Drain Current (DC)	I_D		30	mA
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	120	mA
Allowable Power Dissipation	P_D		250	mW
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=300μA, V_{GS}=0	450			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=360V, V_{GS}=0			10	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±10V, V_{DS}=0			±10	μA
Cutoff Voltage	V_{GS}(off)	V_{DS}=10V, I_D=1mA	1.0		2.0	V
Forward Transfer Admittance	|yfs|	V_{DS}=10V, I_D=15mA	14	28		mS
Static Drain-to-Source On-State Resistance	R_{DS}(on)1	I_D=15mA, V_{GS}=10V		210	275	Ω
	R_{DS}(on)2	I_D=15mA, V_{GS}=4V		230	300	Ω
Input Capacitance	Ciss	V_{DS}=20V, f=1MHz		20		pF
Output Capacitance	Coss	V_{DS}=20V, f=1MHz		5		pF
Reverse Transfer Capacitance	Crss	V_{DS}=20V, f=1MHz		3		pF
Turn-ON Delay Time	t_d(on)	See specified Test Circuit.		25		ns
Rise Time	t_r	See specified Test Circuit.		100		ns
Turn-OFF Delay Time	t_d(off)	See specified Test Circuit.		110		ns
Fall Time	t_f	See specified Test Circuit.		1.2		μs
Diode Forward Voltage	V_{SD}	I_S=30mA, V_{GS}=0			1.2	V

Marking : HK

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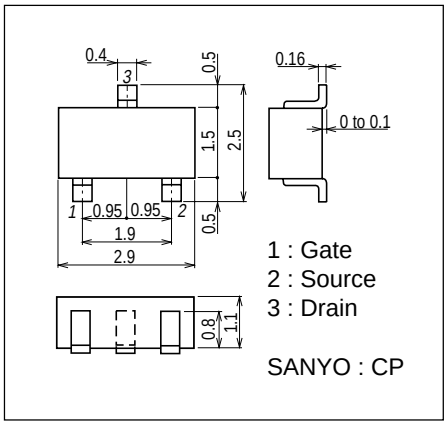
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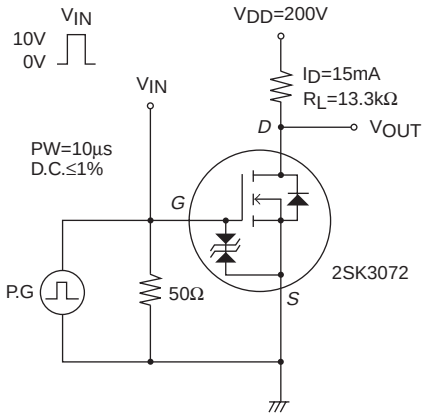
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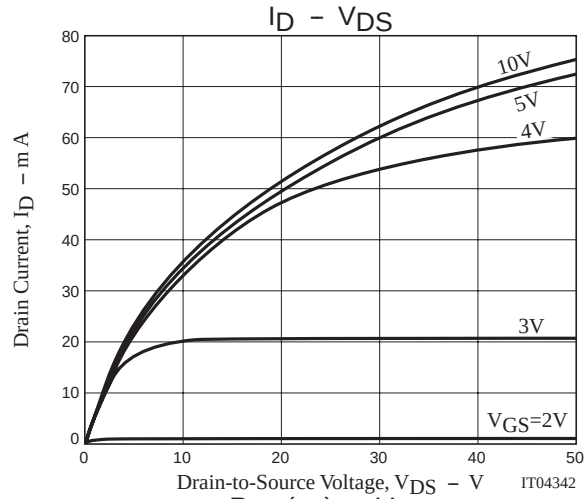
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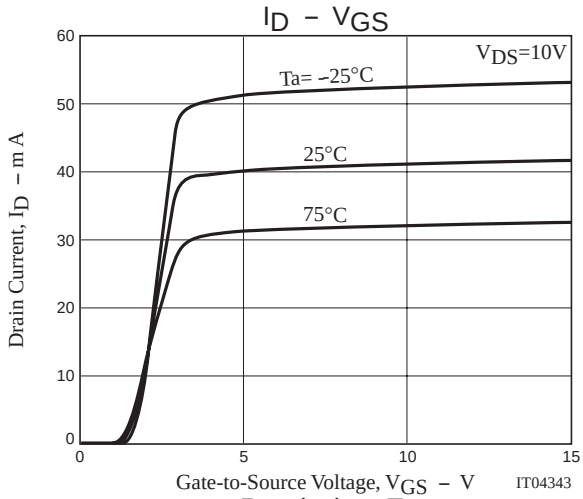
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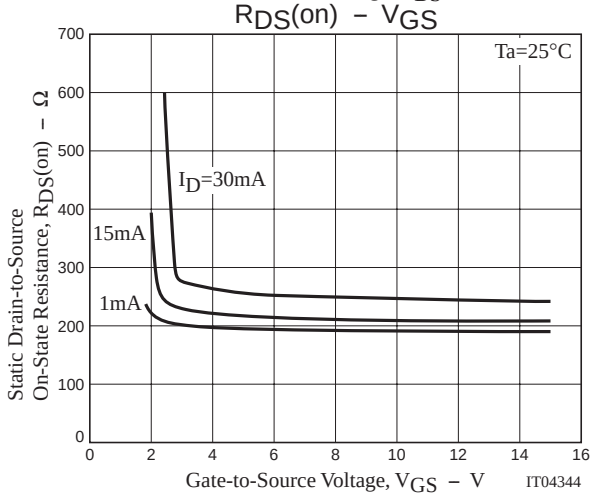


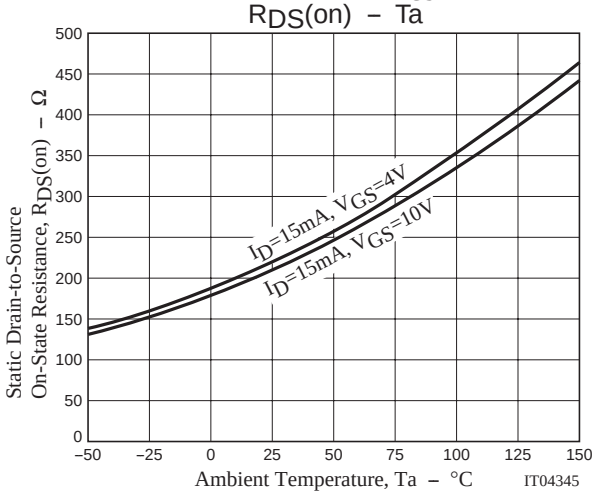
Switching Time Test Circuit





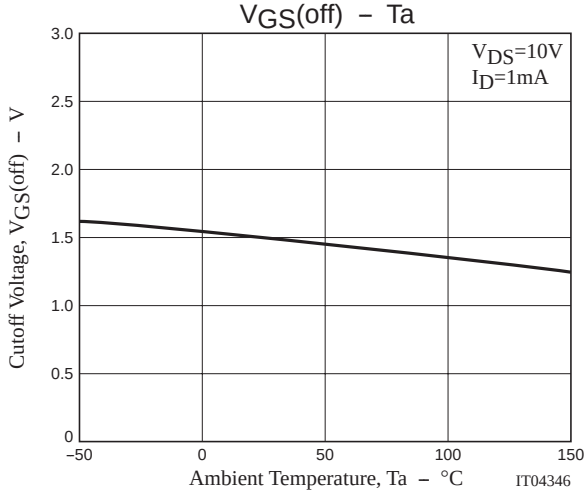




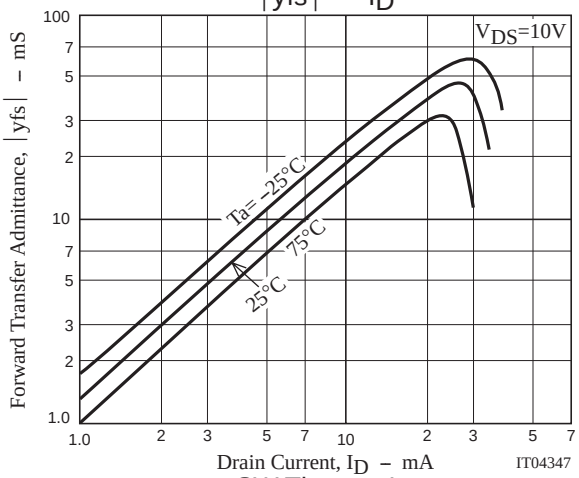


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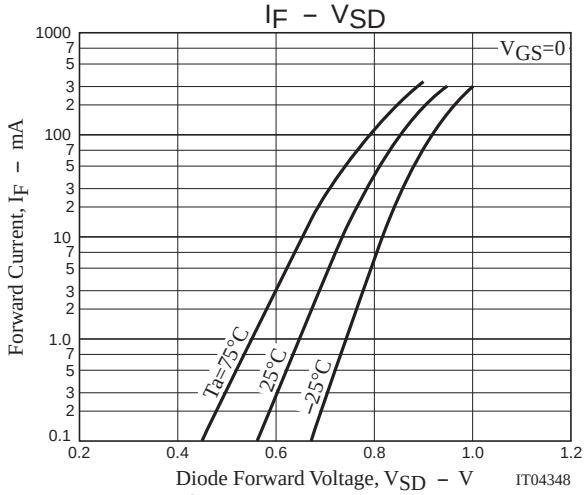
$V_{GS(off)}$ – Ta



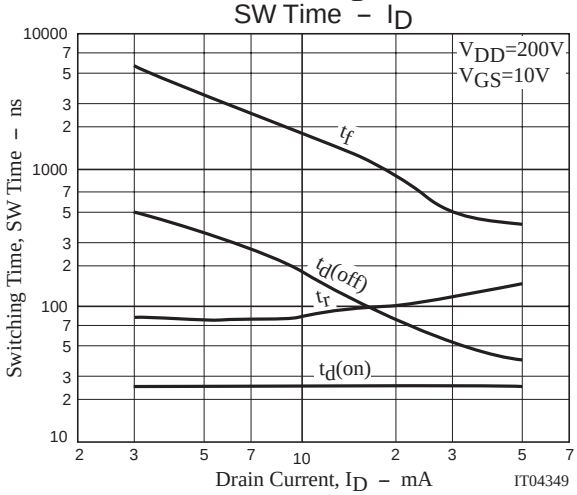
|yfs| – I_D



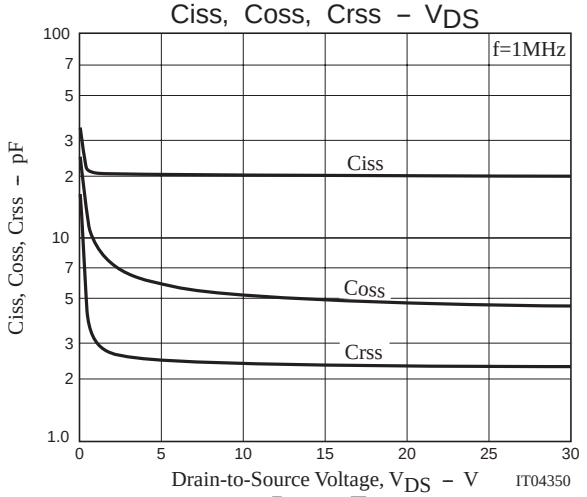
I_F – V_{SD}



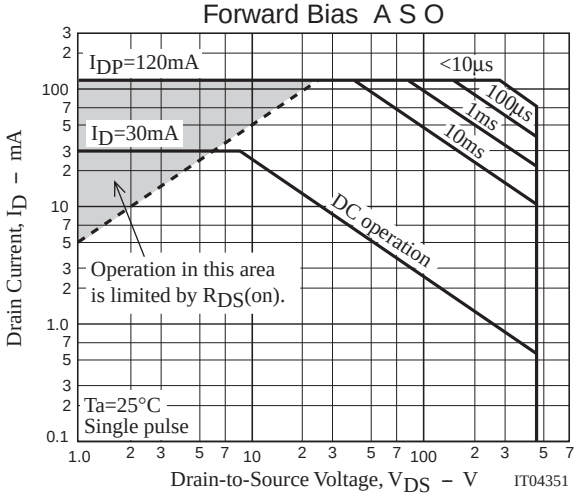
SW Time – I_D



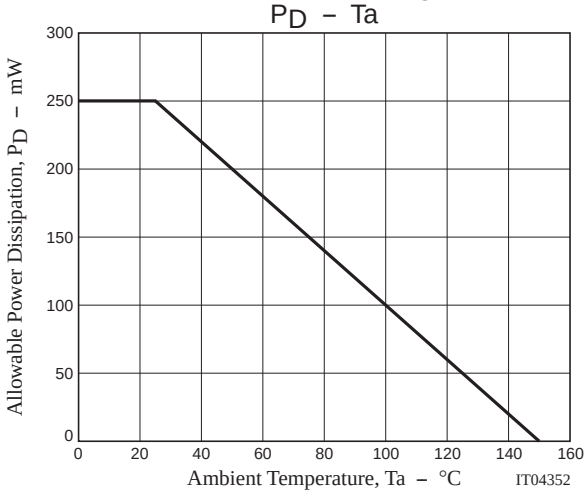
Ciss, Coss, Crss – V_{DS}



Forward Bias A S O



P_D – Ta



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