Ordering number : EN7082A

Discontinued

SANYO Semiconductors

DATA SHEET

N-Channel Silicon MOSFET

2SK2628LS — General-Purpose Switching Device Applications

Features

- Low ON-resistance.
- Low Qg.
- Ultrahigh-speed switching.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		600	V
Gate-to-Source Voltage	V_{GSS}		±30	V
Drain Current (DC)	I_D		6	A
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	24	A
Allowable Power Dissipation	P_D		2.0	W
		Tc=25°C	35	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C
Avalanche Energy (Single Pulse) *1	E_{AS}		98	mJ
Avalanche Current *2	I_{AV}		6	A

*1 V_{DD}=50V, L=5mH, I_{AV}=6A

*2 L≤5mH, single pulse

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0V	600			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=600V, V_{GS}=0V			1.0	mA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±30V, V_{DS}=0V			±100	nA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1mA	3.5		5.5	V

Marking : K2628

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SANYO Semiconductor Co., Ltd.

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

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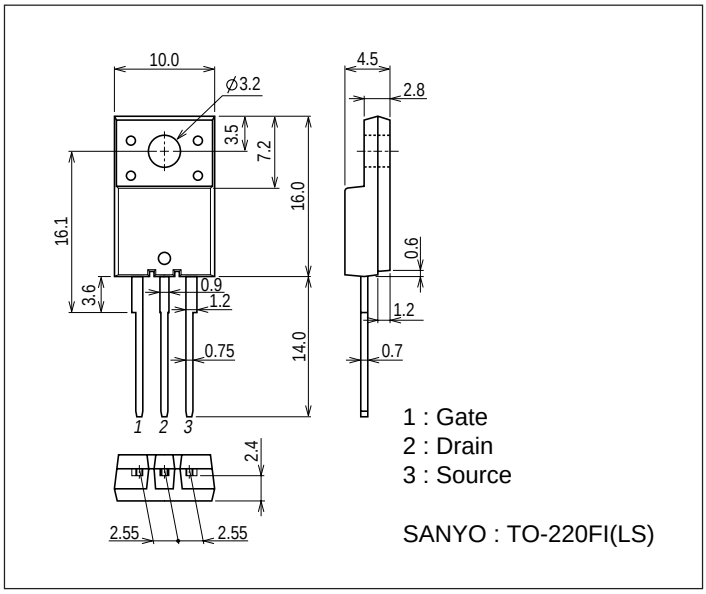
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Transfer Admittance	|yfs|	V_{DS}=10V, I_D=4A	2.0	4.0		S
Static Drain-to-Source On-State Resistance	R_{DS}(on)	I_D=2A, V_{GS}=15V		0.9	1.1	Ω
Input Capacitance	Ciss	V_{DS}=20V, f=1MHz		1050		pF
Output Capacitance	Coss	V_{DS}=20V, f=1MHz		320		pF
Reverse Transfer Capacitance	Crss	V_{DS}=20V, f=1MHz		180		pF
Total Gate Charge	Qg	V_{DS}=200V, I_D=6A, V_{GS}=10V		30		nC
Turn-ON Delay Time	t_d(on)	See specified Test Circuit.		23		ns
Rise Time	t_r	See specified Test Circuit.		35		ns
Turn-OFF Delay Time	t_d(off)	See specified Test Circuit.		90		ns
Fall Time	t_f	See specified Test Circuit.		35		ns
Diode Forward Voltage	V_{SD}	I_S=6A, V_{GS}=0V		0.85	1.2	V

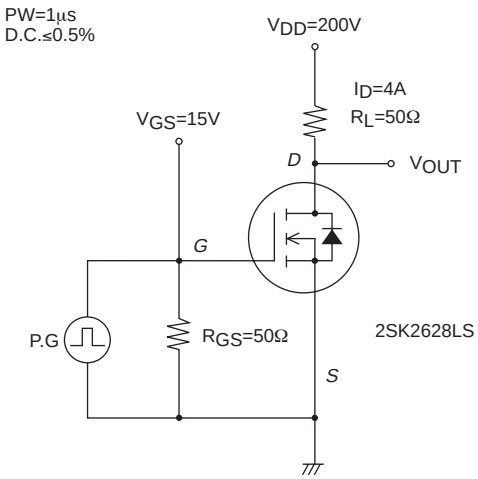
Package Dimensions

unit : mm (typ)

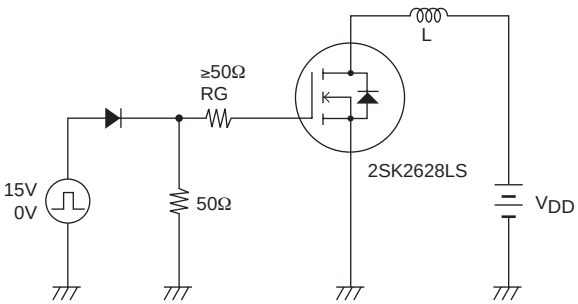
7509-002



Switching Time Test Circuit



Avalanche Resistance Test Circuit



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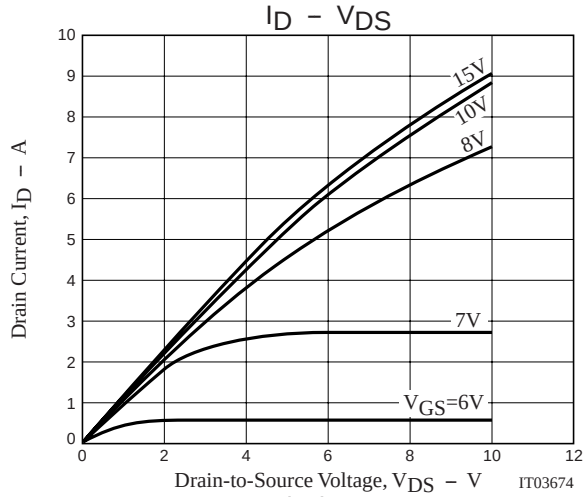

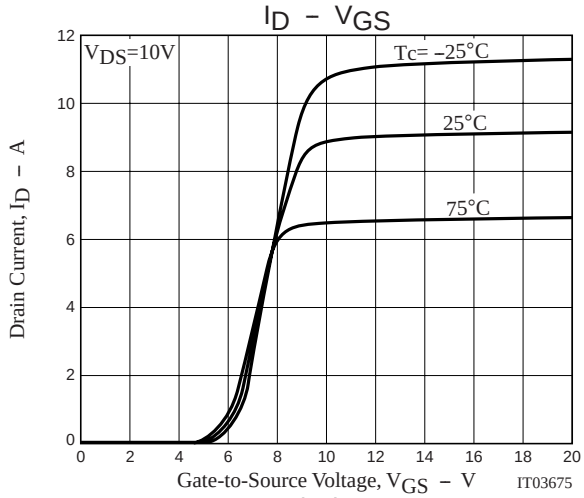

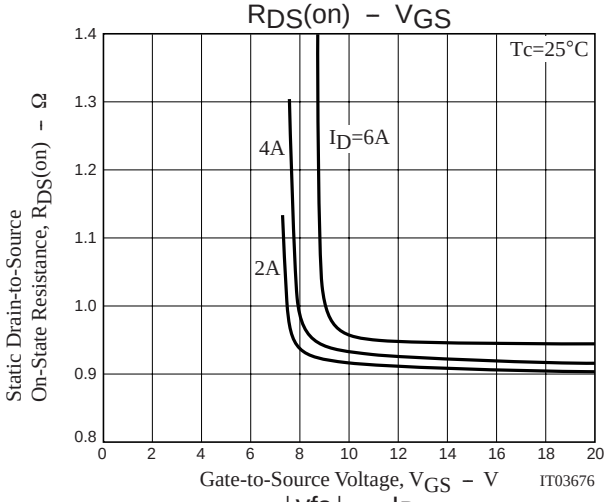

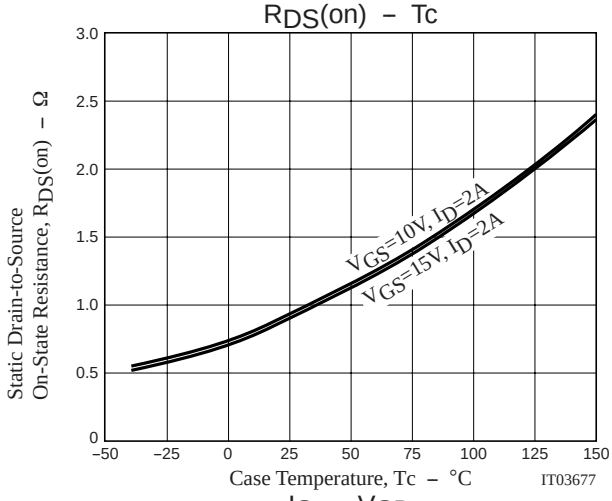

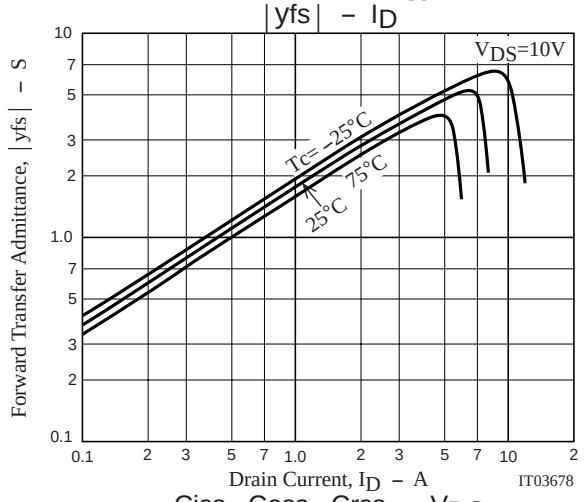

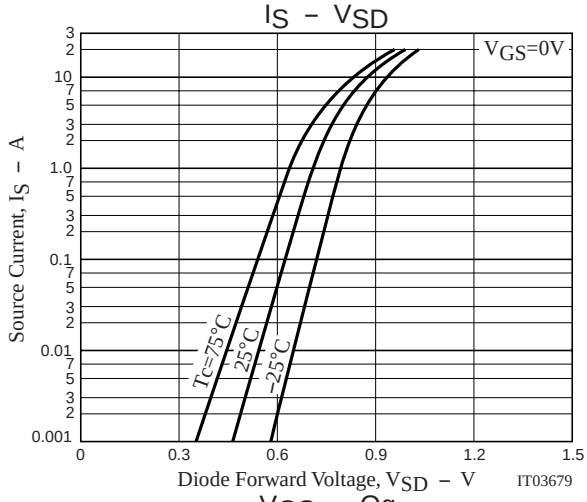

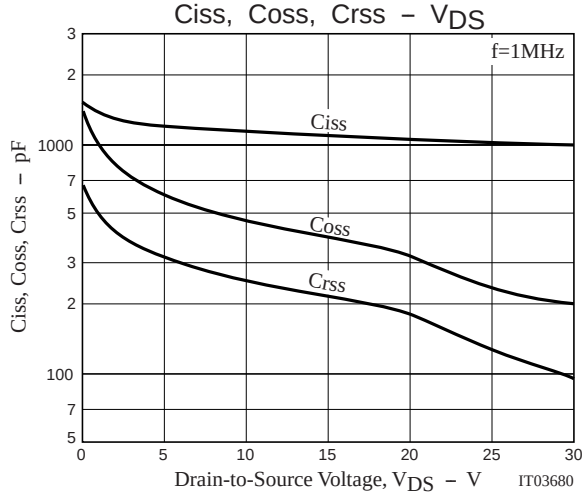

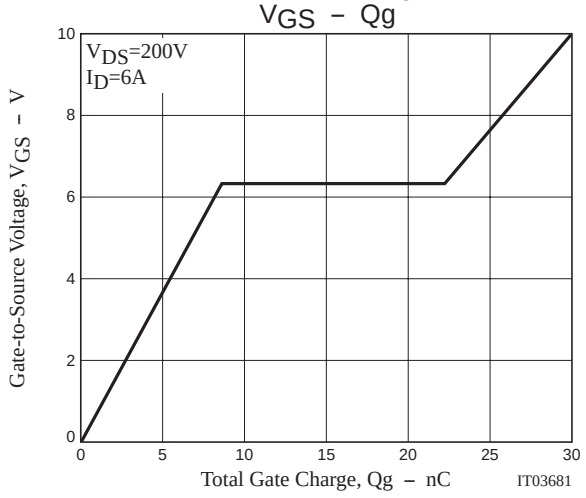

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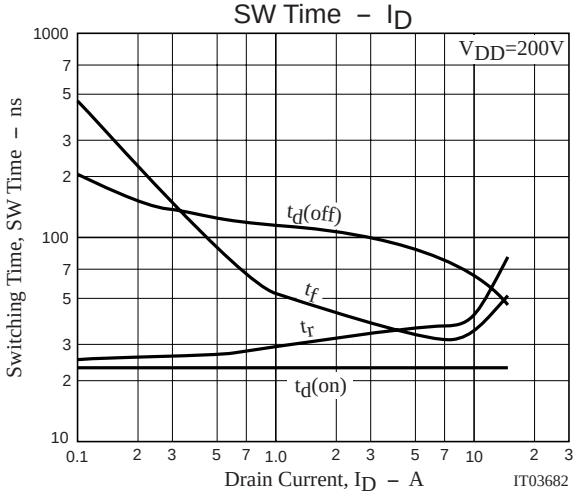
SW Time – I_D



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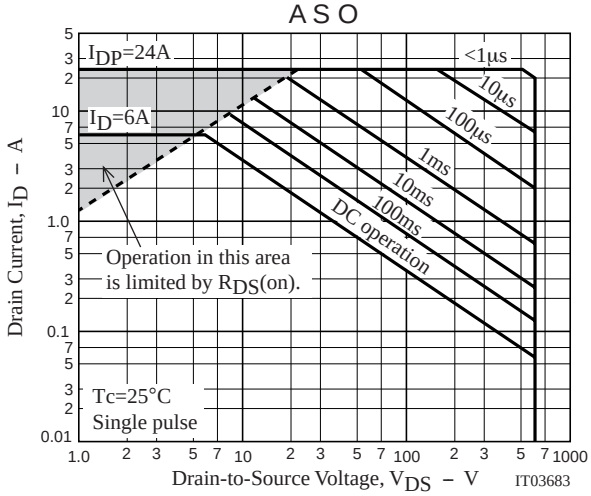
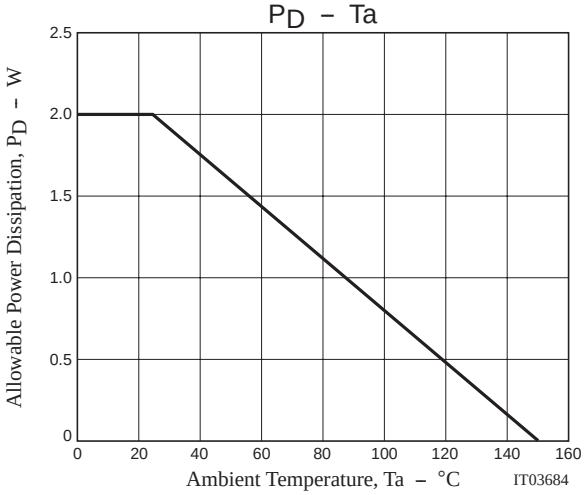
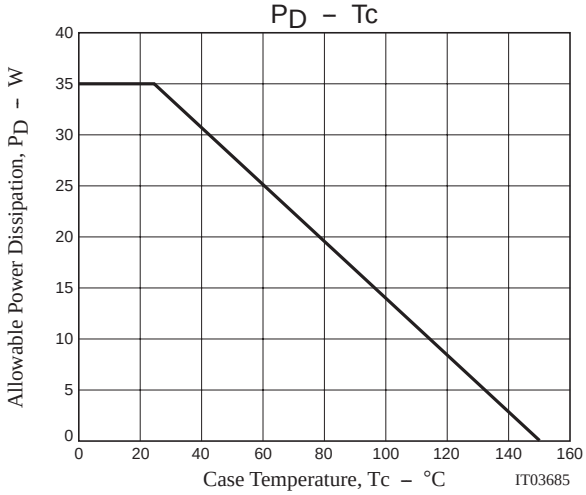


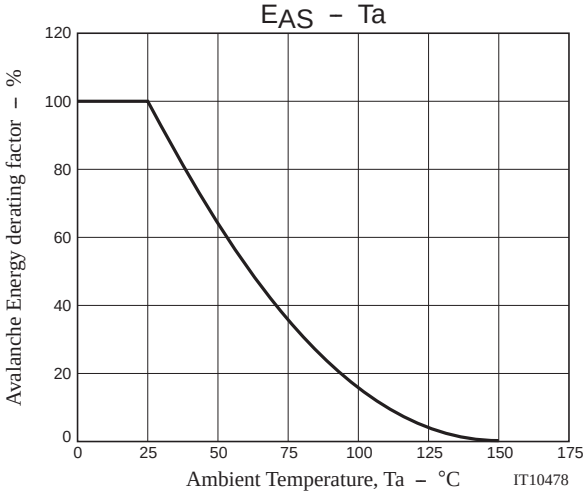
P_D – Ta



P_D – Tc



E_{AS} – Ta



Note on usage : Since the 2SK2628LS is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

This catalog provides information as of October, 2007. Specifications and information herein are subject to change without notice.