



2SK2624ALS — N-Channel Silicon MOSFET

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	VDSS		600	V
Gate-to-Source Voltage	VGSS		±30	V
Drain Current (DC)	ID		3.5	A
Drain Current (Pulse)	IDP	PW≤10μs, duty cycle≤1%	12	A
Allowable Power Dissipation	PD		2.0	W
		Tc=25°C	25	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C
Avalanche Energy (Single Pulse) *1	EAS		49	mJ
Avalanche Current *2	I _{AV}		3	A

*1 VDD=50V, L=10mH, IAV=3A

*2 L≤10mH, single pulse

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0V	600			V
Zero-Gate Voltage Drain Current	IDSS	VDS=600V, VGS=0V			1.0	mA
Gate-to-Source Leakage Current	IGSS	VGS=±30V, VDS=0V			±100	nA
Cutoff Voltage	VGS(off)	VDS=10V, ID=1mA	3.5		5.5	V

Marking : K2624

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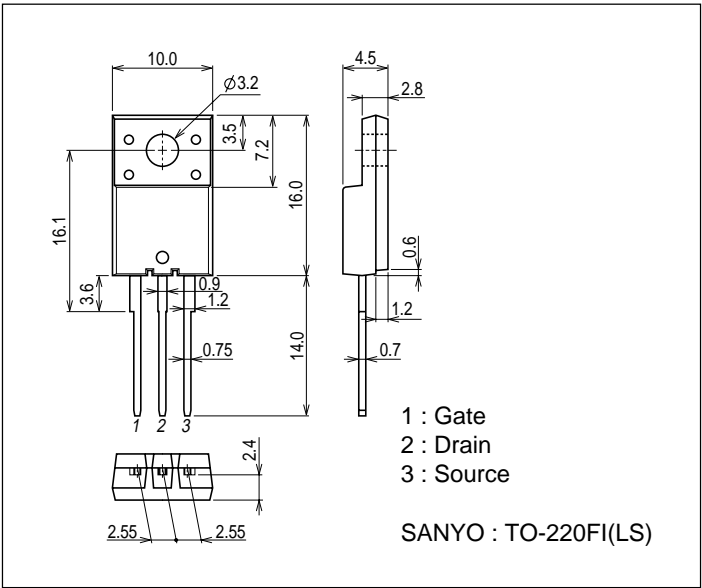
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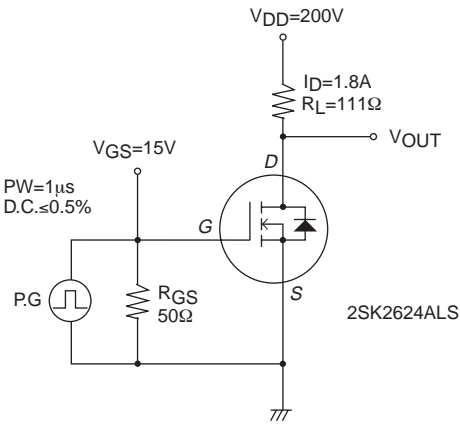
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, I_D=1.8A$	1.0	2.0		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D=1.8A, V_{GS}=15V$		2.0	2.6	Ω
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		550		pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$		165		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$		85		pF
Total Gate Charge	Q_g	$V_{DS}=200V, I_D=3A, V_{GS}=10V$		15		nC
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		17		ns
Rise Time	t_r	See specified Test Circuit.		17		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		40		ns
Fall Time	t_f	See specified Test Circuit.		22		ns
Diode Forward Voltage	V_{SD}	$I_S=3A, V_{GS}=0V$		0.98	1.2	V

Package Dimensions

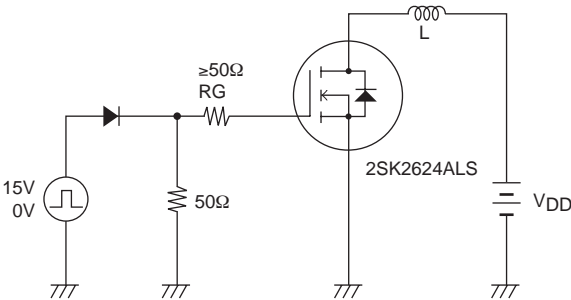
unit : mm (typ)
7509-002



Switching Time Test Circuit

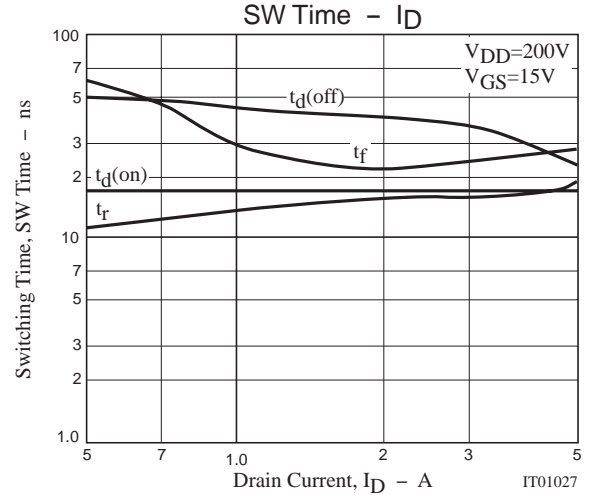
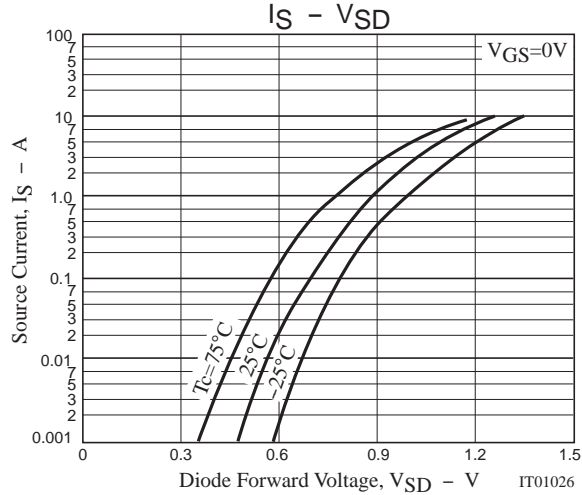
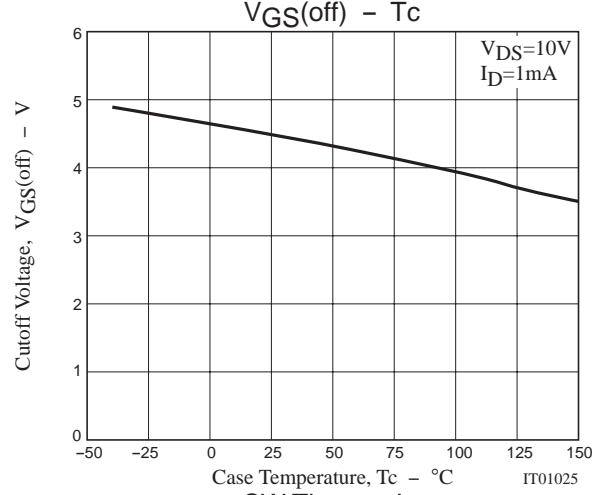
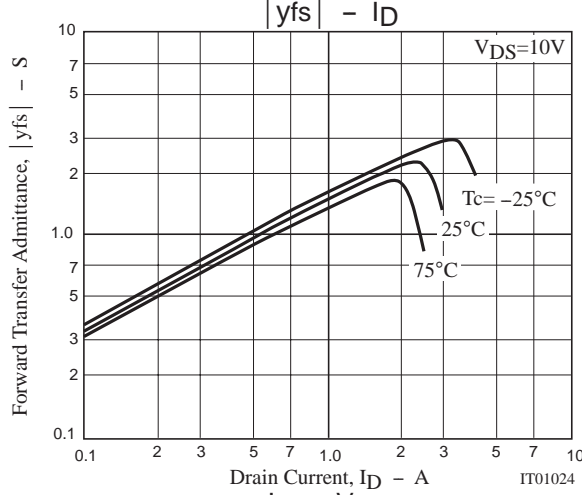
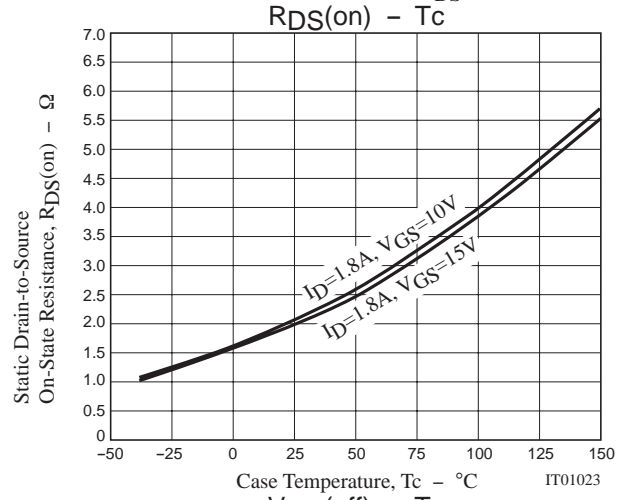
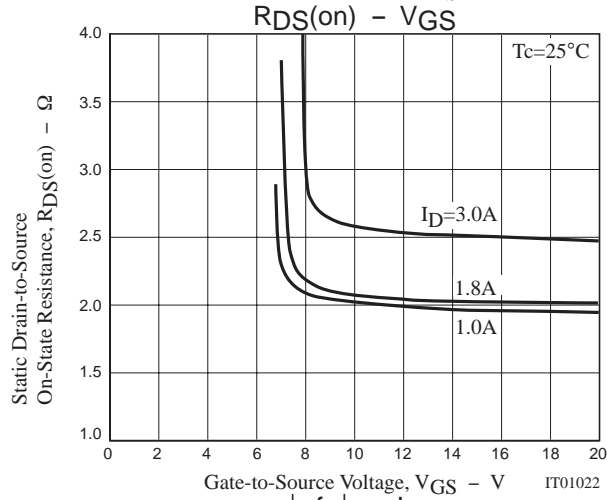
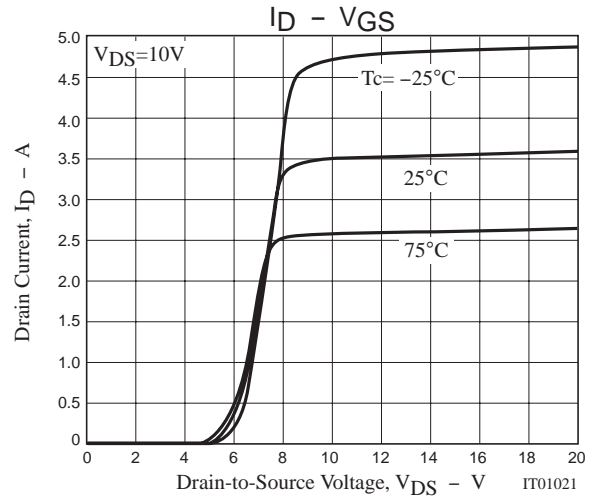
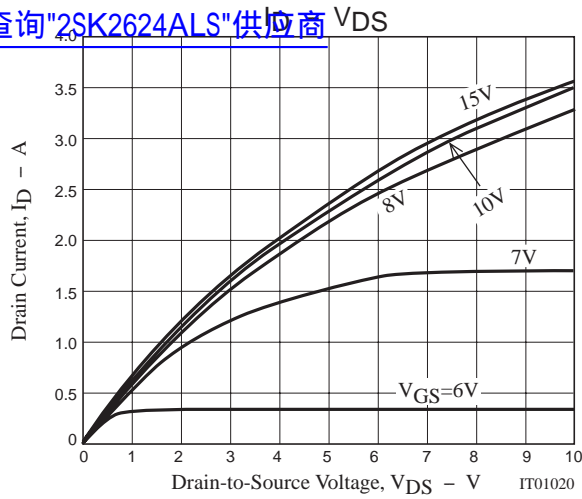


Avalanche Resistance Test Circuit



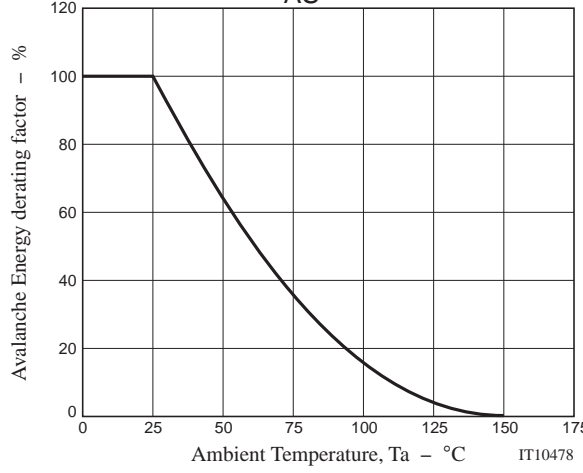
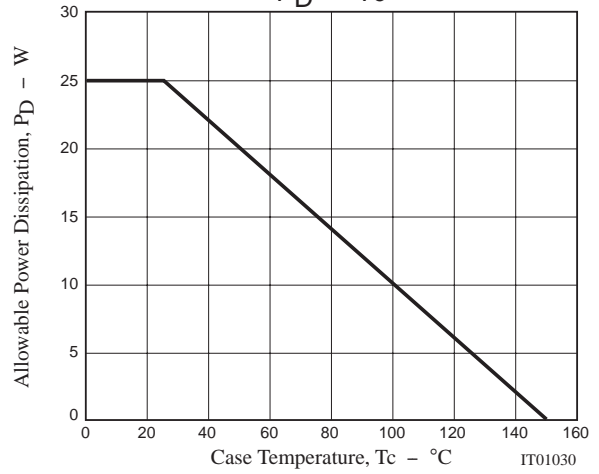
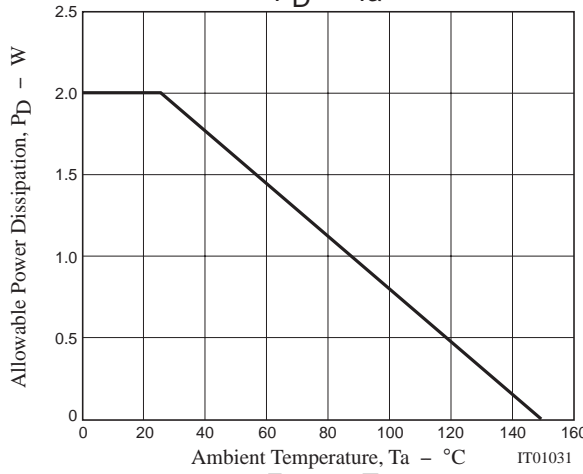
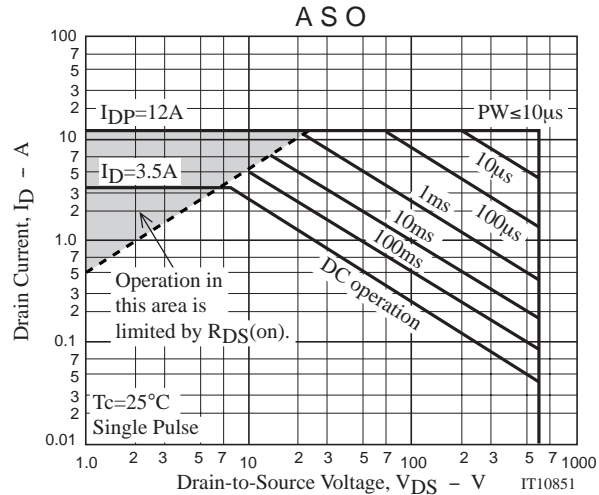
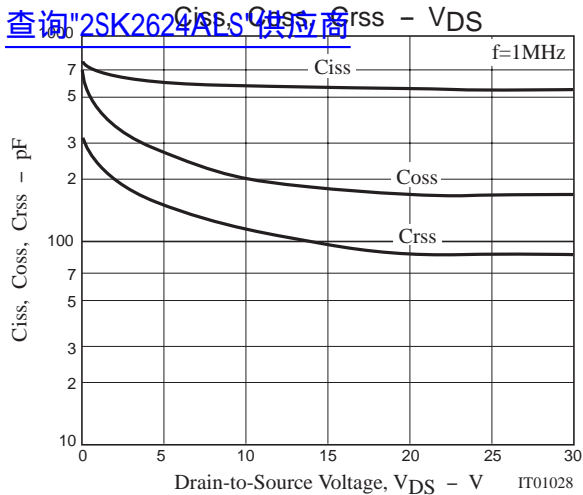
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