

SANYO Semiconductors DATA SHEET

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	Α
Drain Current (Pulse)	IDP	PW≤10μs, duty cycle≤1%	12	А
Allowable Power Dissipation	D-		2.0	W
	PD	Tc=25°C (SANYO's ideal heat dissipation condition)*1	25	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C
Avalanche Energy (Single Pulse) *2	EAS		49	mJ
Avalanche Current *3	IAV		3	А

^{*1} SANYO's condition is radiation from backside.

The method is applying silicone grease to the backside of the device and attaching the device to water-cooled radiator made of aluminium.

Marking: K2624

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^{*2} VDD=50V, L=10mH, IAV=3A

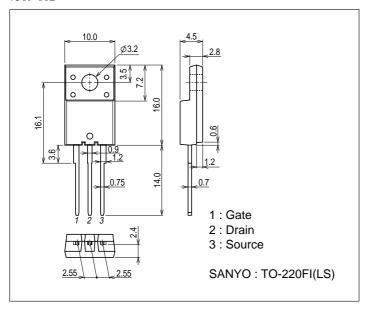
^{*3} L≤10mH, single pulse

Electrical Characteristics at Ta=25°C

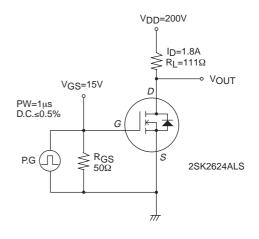
Parameter	Symbol	Conditions	Ratings			Llmit
			min	typ	max	Unit
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0V	600			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =600V, V _{GS} =0V			1.0	mA
Gate-to-Source Leakage Current	IGSS	V _{GS} =±30V, V _{DS} =0V			±100	nA
Cutoff Voltage	VGS(off)	VDS=10V, ID=1mA	3.5		5.5	V
Forward Transfer Admittance	yfs	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	Ciss	V _{DS} =20V, f=1MHz		550		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		165		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		85		pF
Total Gate Charge	Qg	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	tf	See specified Test Circuit.		22		ns
Diode Forward Voltage	V _{SD}	I _S =3A, V _{GS} =0V		0.98	1.2	V

Package Dimensions

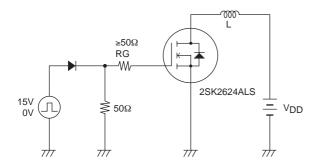
unit : mm (typ) 7509-002

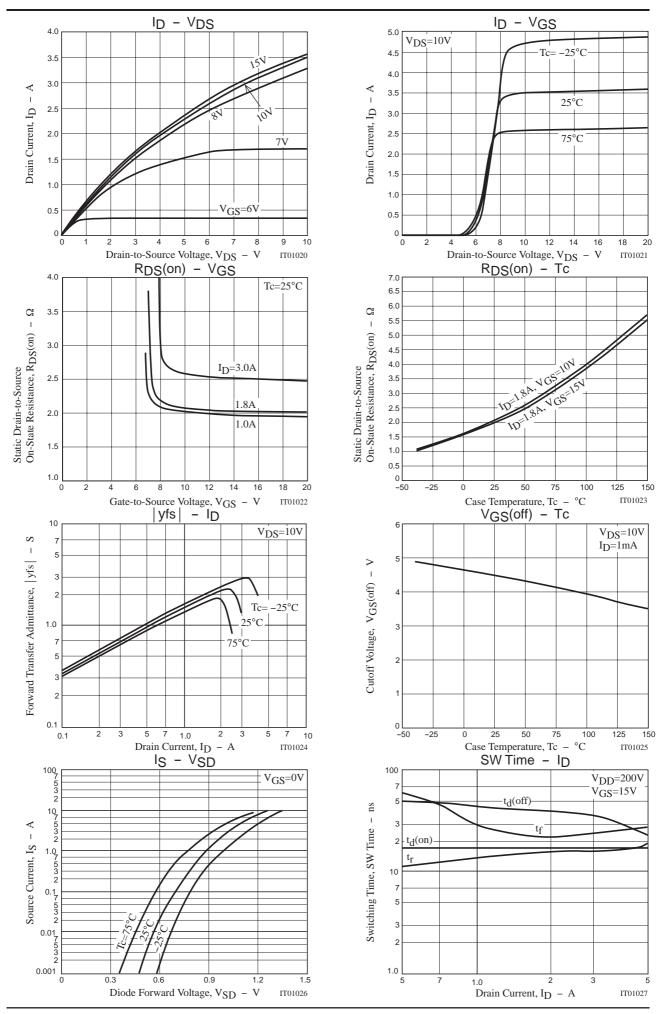


Switching Time Test Circuit

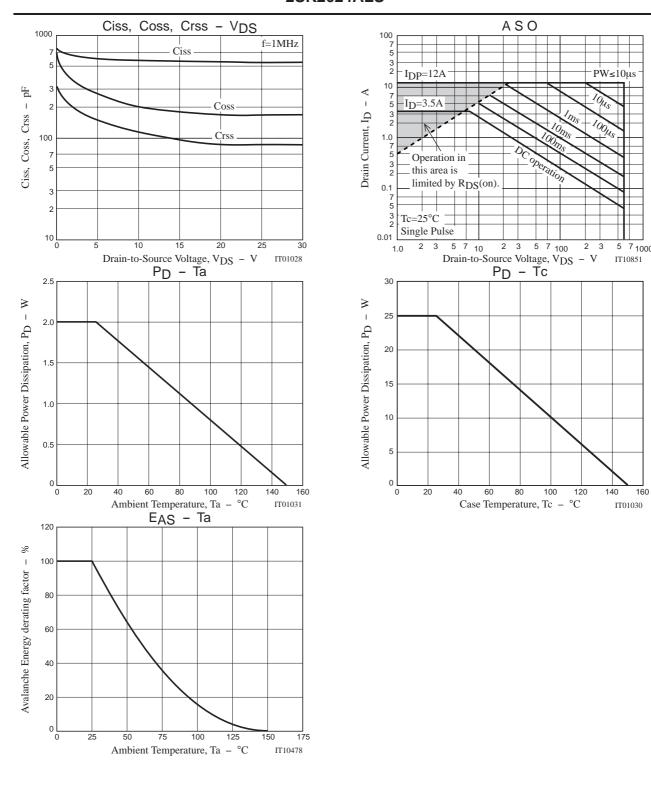


Avalanche Resistance Test Circuit





2SK2624ALS



Note on usage: Since the 2SK2624ALS is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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