

SANYO Semiconductors DATA SHEET

N-Channel Silicon MOSFET

2SK4067— General-Purpose Switching Device **Applications**

Features

- · Motor drive applications.
- · 4.5V drive.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		30	V
Gate-to-Source Voltage	VGSS		±20	V
Drain Current (DC)	ID		8	Α
Drain Current (Pulse)	IDP	PW≤10μs, duty cycle≤1%	32	Α
Allowable Power Dissipation	PD		1	W
	ן יי	Tc=25°C	10	W
Channel Temperature	Tch		150	ô
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Llmit
			min	typ	max	Unit
Drain-to-Source Breakdown Voltage	V(BR)DSS	I _D =1mA, V _G S=0V	30			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =30V, V _{GS} =0V			1	μΑ
Gate-to-Source Leakage Current	IGSS	V _{GS} =±16V, V _{DS} =0V			±10	μΑ
Cutoff Voltage	VGS(off)	V _{DS} =10V, I _D =1mA	1.5		2.5	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =4A	2.6	4.4		S
Static Drain-to-Source On-State Resistance	R _{DS} (on)1	I _D =8A, V _{GS} =10V		85	115	mΩ
	R _{DS} (on)2	I _D =4A, V _G S=4.5V		155	220	mΩ
Input Capacitance	Ciss	V _{DS} =10V, f=1MHz		260		pF
Output Capacitance	Coss	V _{DS} =10V, f=1MHz		65		pF
Reverse Transfer Capacitance	Crss	VDS=10V, f=1MHz		40		pF

Marking: K4067 Continued on next page.

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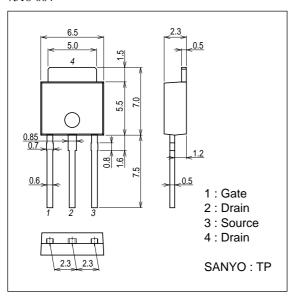
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oill
Turn-ON Delay Time	td(on)	See specified Test Circuit.		9		ns
Rise Time	t _r	See specified Test Circuit.		8		ns
Turn-OFF Delay Time	td(off)	See specified Test Circuit.		19		ns
Fall Time	tf	See specified Test Circuit.		8		ns
Total Gate Charge	Qg	V _{DS} =10V, V _{GS} =10V, I _D =8A		6		nC
Gate-to-Source Charge	Qgs	VDS=10V, VGS=10V, ID=8A		1.2		nC
Gate-to-Drain "Miller" Charge	Qgd	V _{DS} =10V, V _{GS} =10V, I _D =8A		1.0		nC
Diode Forward Voltage	V _{SD}	I _S =8A, V _{GS} =0V		1.05	1.2	V

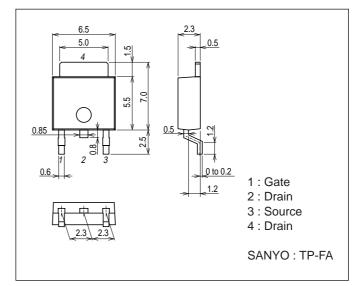
Package Dimensions

unit : mm (typ) 7518-004

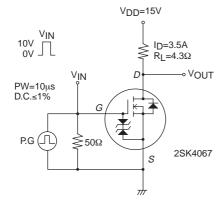


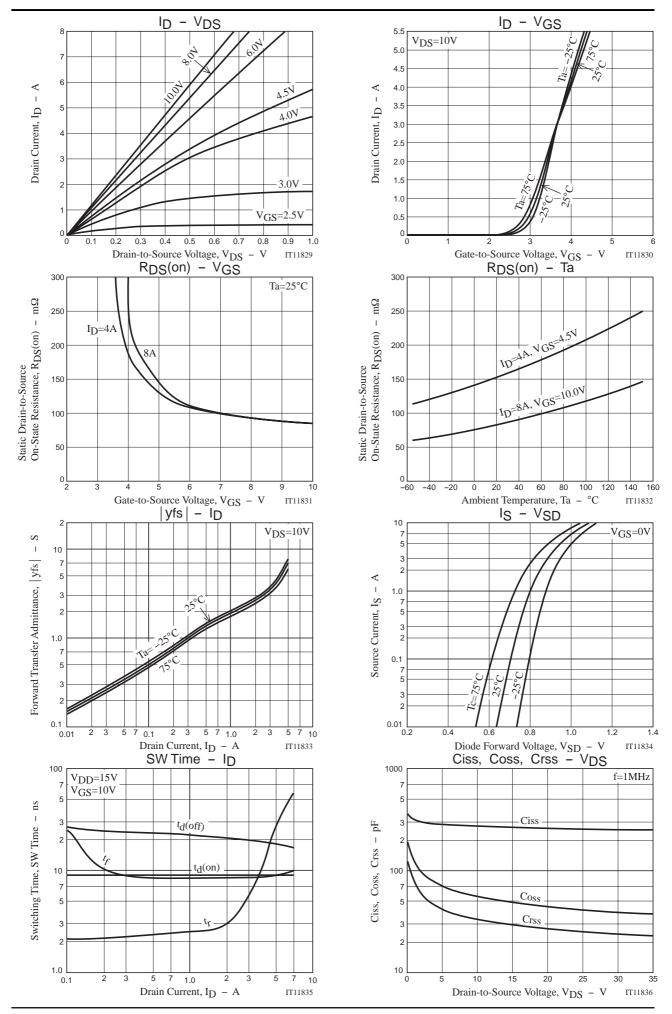
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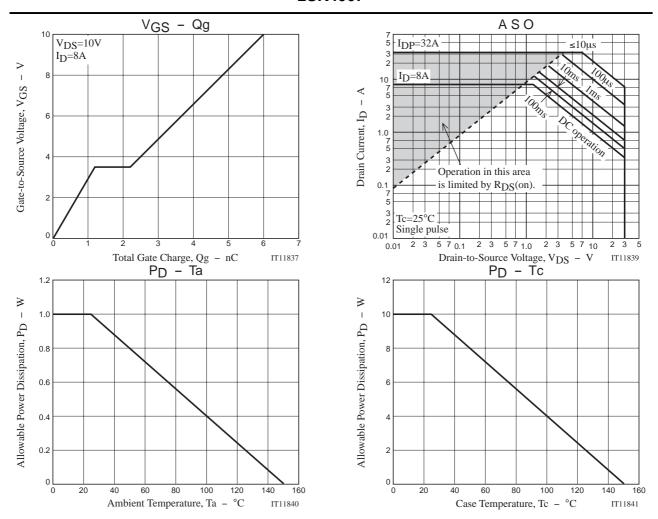
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Switching Time Test Circuit







Note on usage: Since the 2SK4067 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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