



SANYO Semiconductors

DATA SHEET

2SK2406

N-Channel Silicon MOSFET — General-Purpose Switching Device Applications

Features

- Low ON-resistance.
- Ultrahigh-speed switching.
- High-speed diode.

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}		±30	V
Drain Current (DC)	I _D		1	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	4	A
Allowable Power Dissipation	P _D		1	W
		Tc=25°C	30	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-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 =1mA, V _{GS} =0V	450			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =450V, V _{GS} =0V			1	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	2.0		3.0	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, I _D =0.5A	0.4	0.8		S
Static Drain-to-Source On-State Resistance	R _{DS(on)}	I _D =0.5A, V _{GS} =10V		3.5	4.5	Ω

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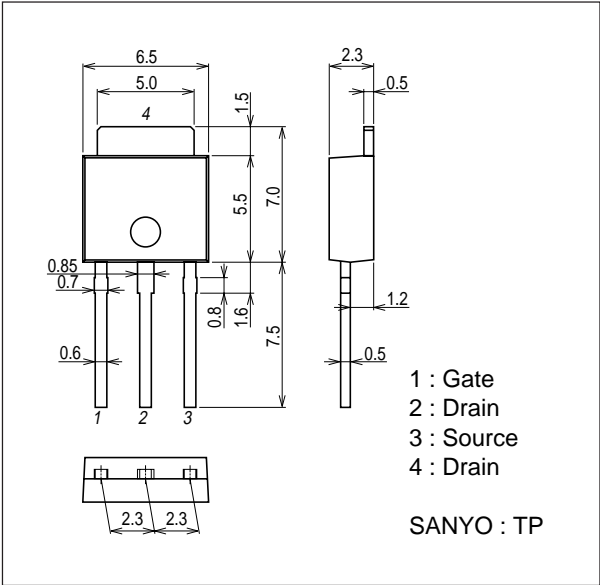
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		300		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		40		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		8		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		10		ns
Rise Time	t _r	See specified Test Circuit.		9		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit.		60		ns
Fall Time	t _f	See specified Test Circuit.		50		ns
Diode Forward Voltage	V _{SD}	I _S =1A, V _{GS} =0V		0.8	1.2	V
Diode Reverse Time	t _{rr}	I _S =1A, di/dt=100A/μs		80	120	ns

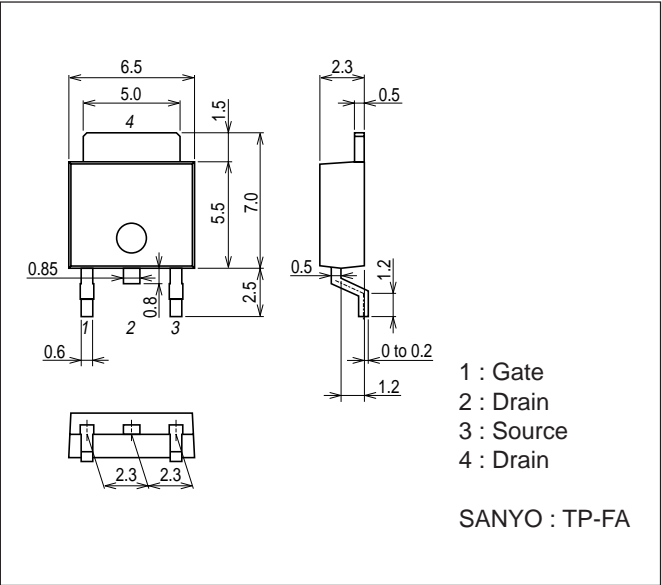
Package Dimensions

unit : mm (typ)
7518-004

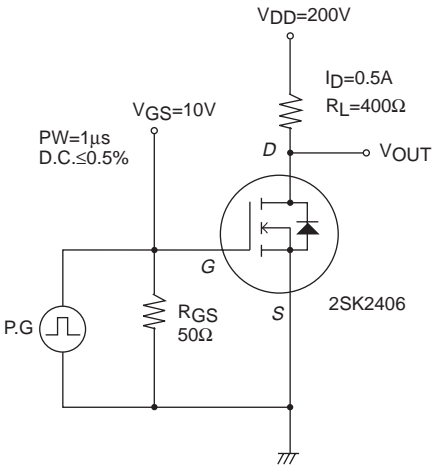


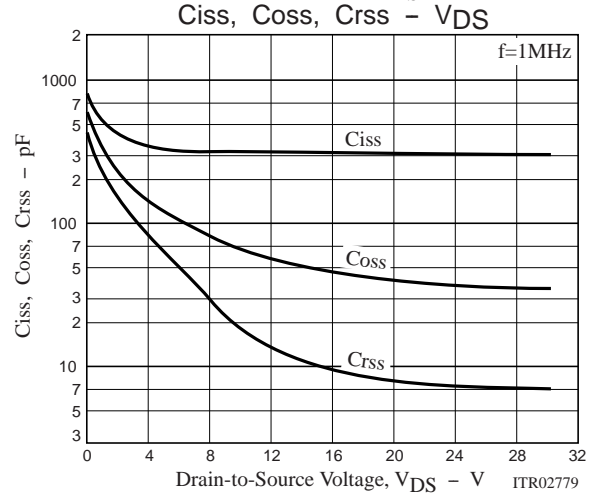
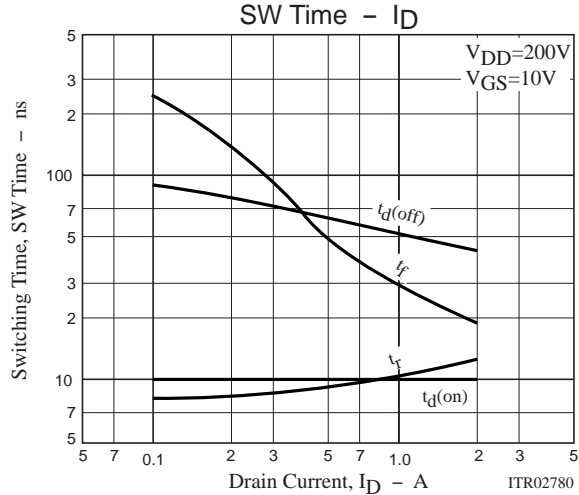
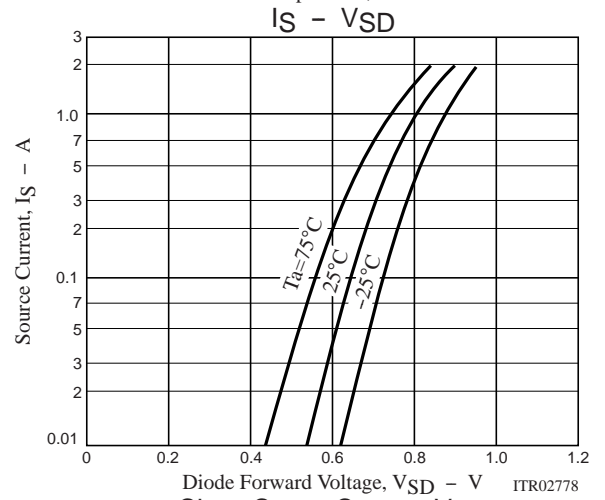
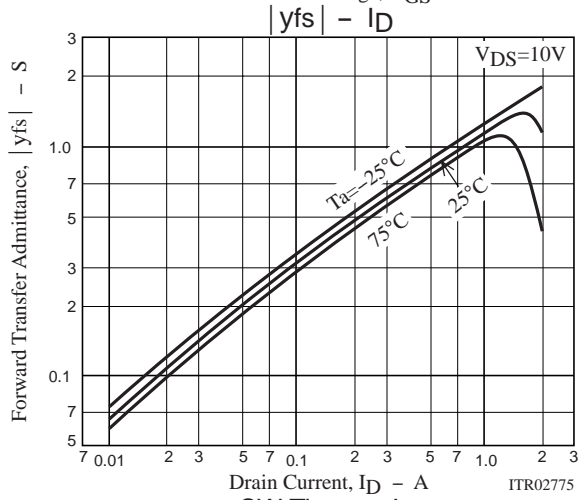
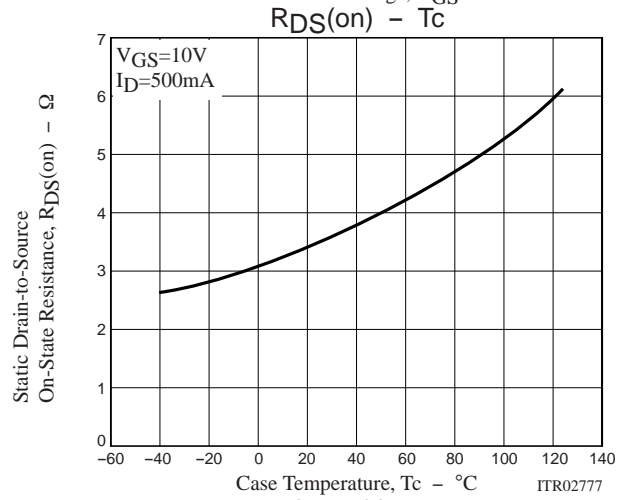
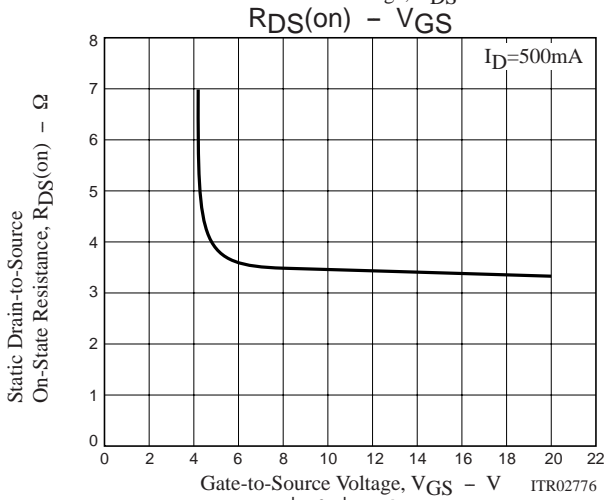
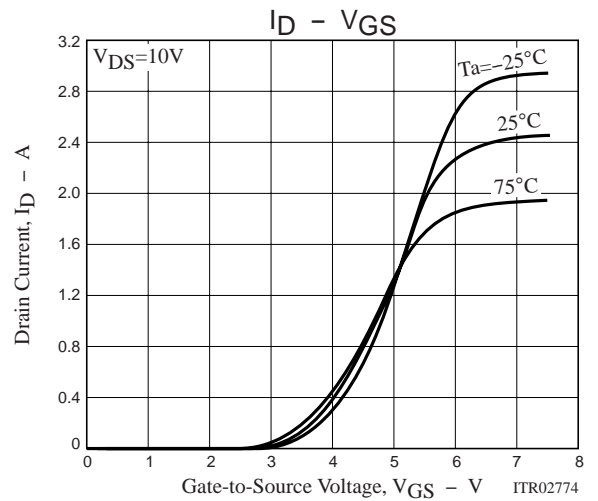
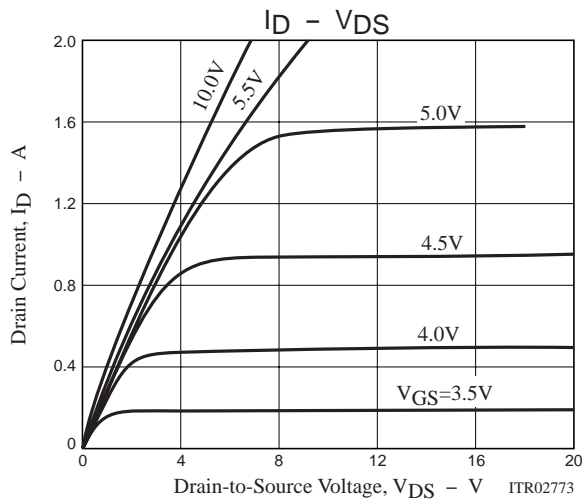
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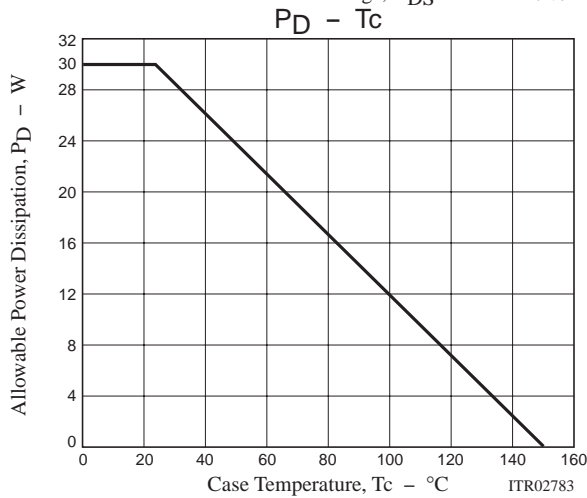
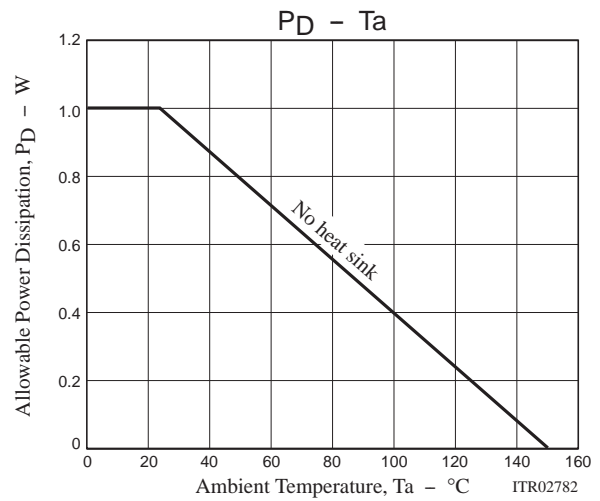
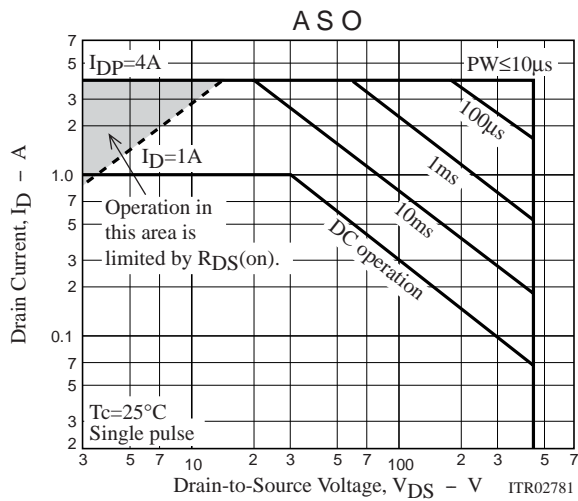
unit : mm (typ)
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Switching Time Test Circuit







Note on usage : Since the 2SK2406 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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