



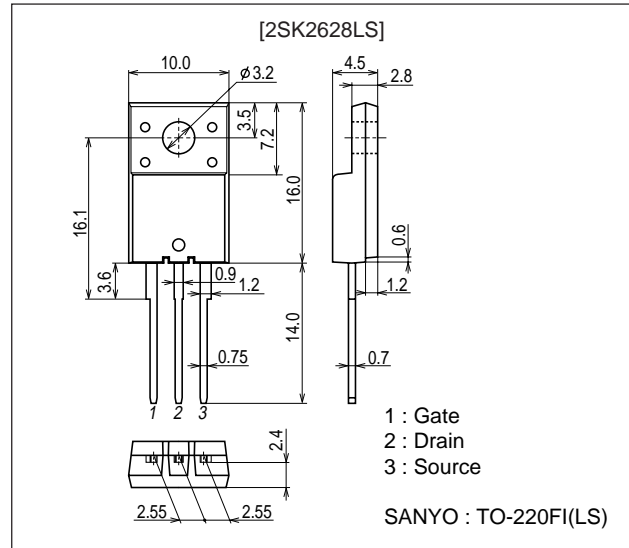
Ultrahigh-Speed Switching Applications

Features

- Low ON-resistance.
- Low Qg.

Package Dimensions

unit : mm
2078C



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}		24	A
Allowable Power Dissipation	P _D	T _c =25°C	2.0	W
			35	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} =0	600			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =600V, V _{GS} =0			1.0	mA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±30V, V _{DS} =0			±100	nA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	3.5		5.5	V
Forward Transfer Admittance	y _{fs}	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

Marking : K2628

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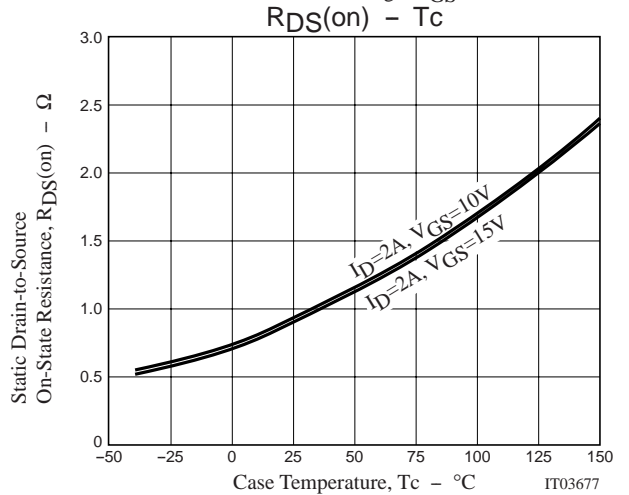
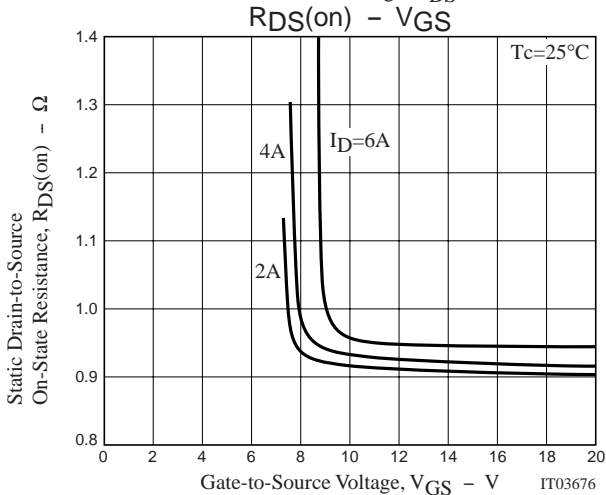
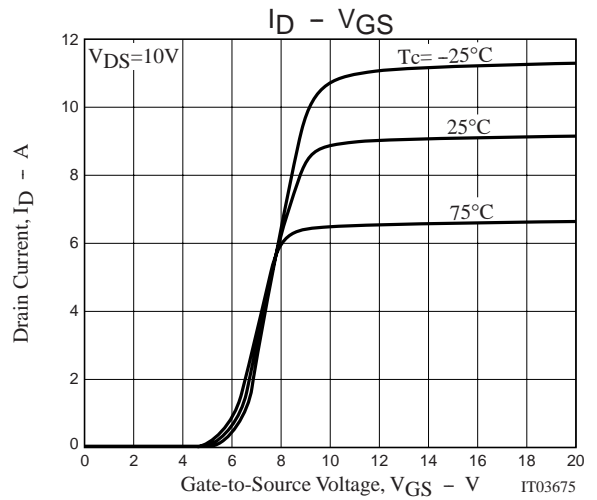
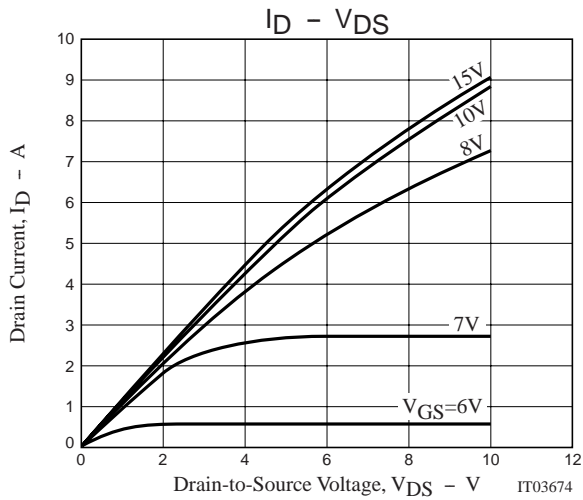
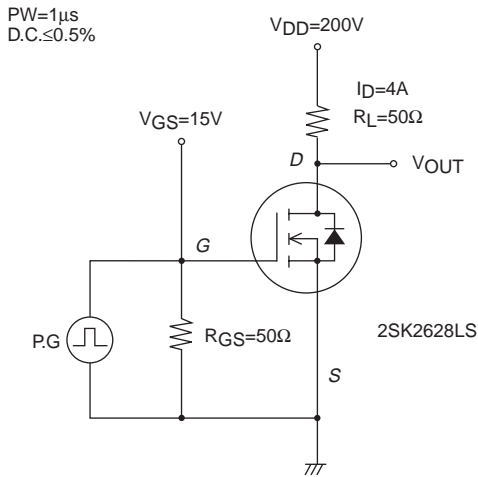
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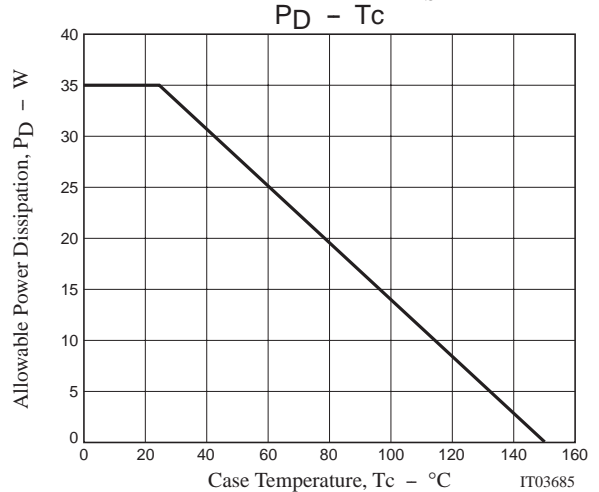
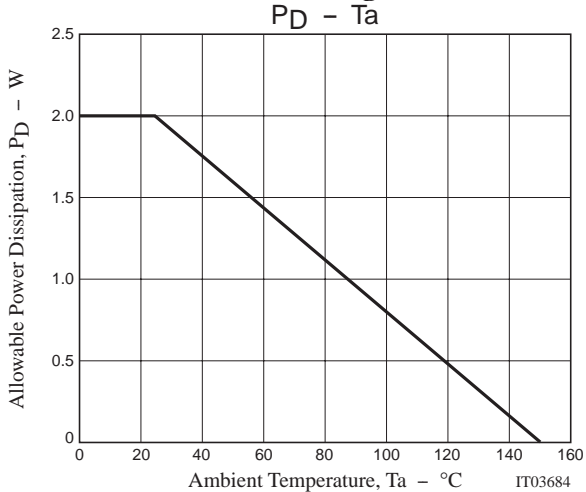
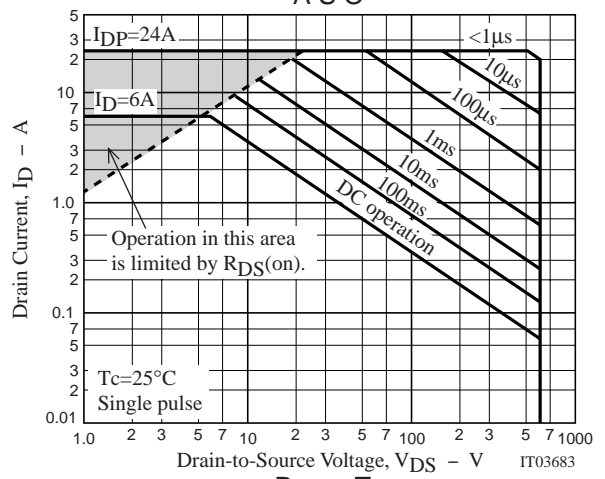
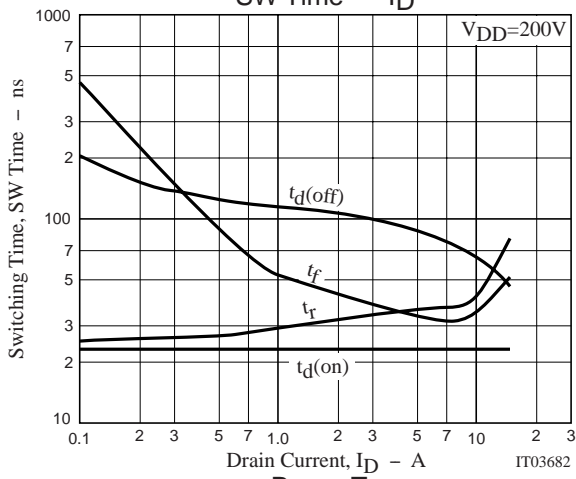
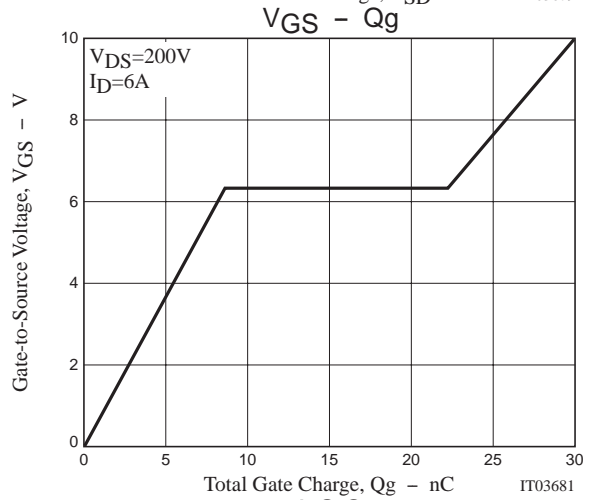
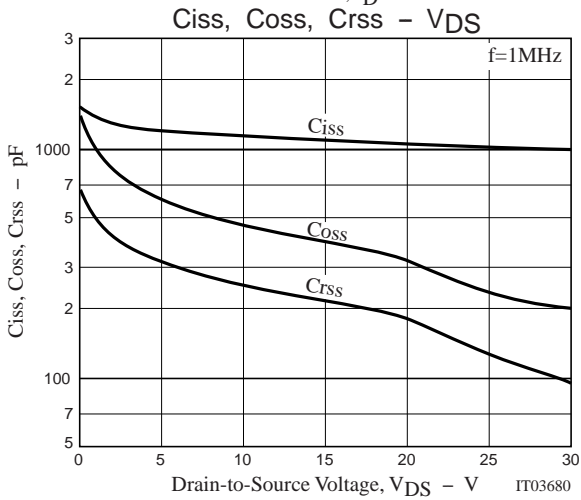
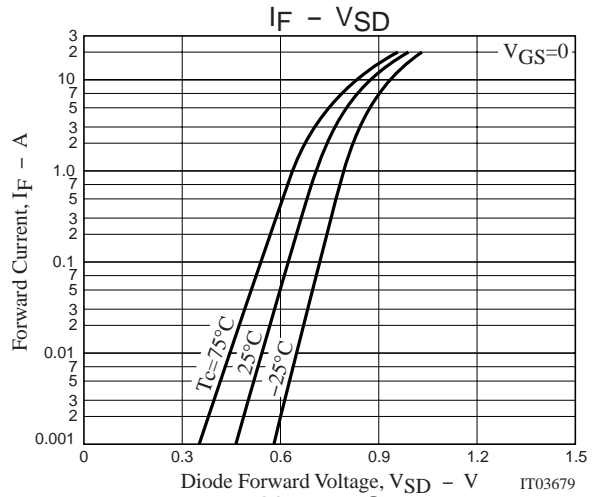
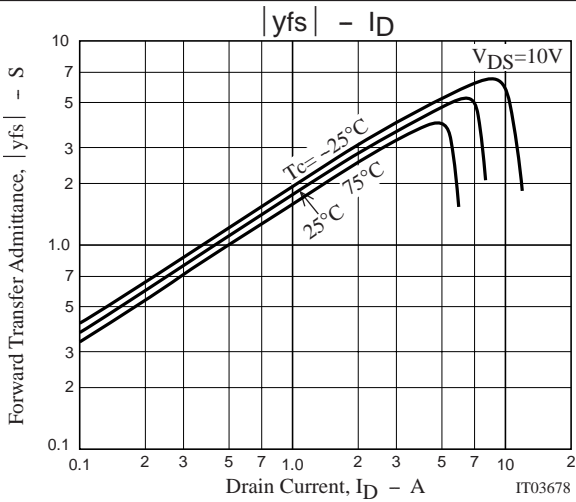
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		1050		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		320		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		180		pF
Total Gate Charge	Qg	V _{DS} =200V, V _{GS} =10V, I _D =6A		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} =0		0.85	1.2	V

Switching Time Test Circuit



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