



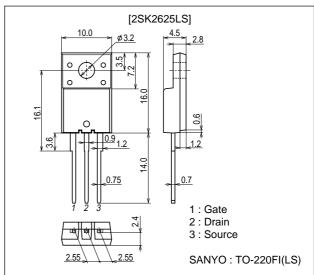
Ultrahigh-Speed Switching Applications

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	VDSS		600	V
Gate-to-Source Voltage	VGSS		±30	V
Drain Current (DC)	ID		4	Α
Drain Current (Pulse)	IDP		16	Α
Allowable Power Dissipation	Do.		2.0	W
	PD	Tc=25°C	30	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			1.1
			min	typ	max	Unit
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0	600			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =600V, V _{GS} =0			1.0	mA
Gate-to-Source Leakage Current	IGSS	VGS=±30V, VDS=0			±100	nA
Cutoff Voltage	VGS(off)	V _{DS} =10V, I _D =1mA	3.5		5.5	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =2.5A	1.5	3.0		S
Static Drain-to-Source On-State Resistance	Rps(on)	ID=2.5A, VGS=15V		1.5	2.0	Ω

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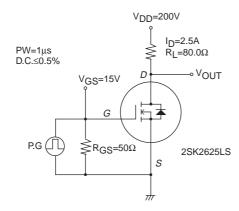
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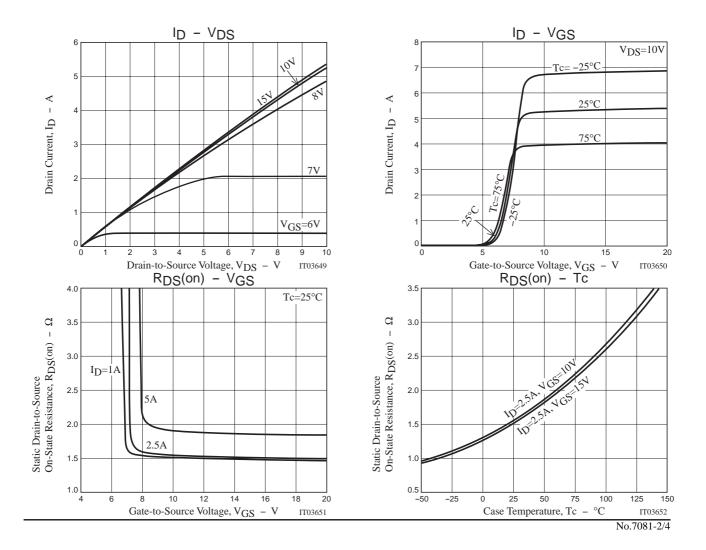
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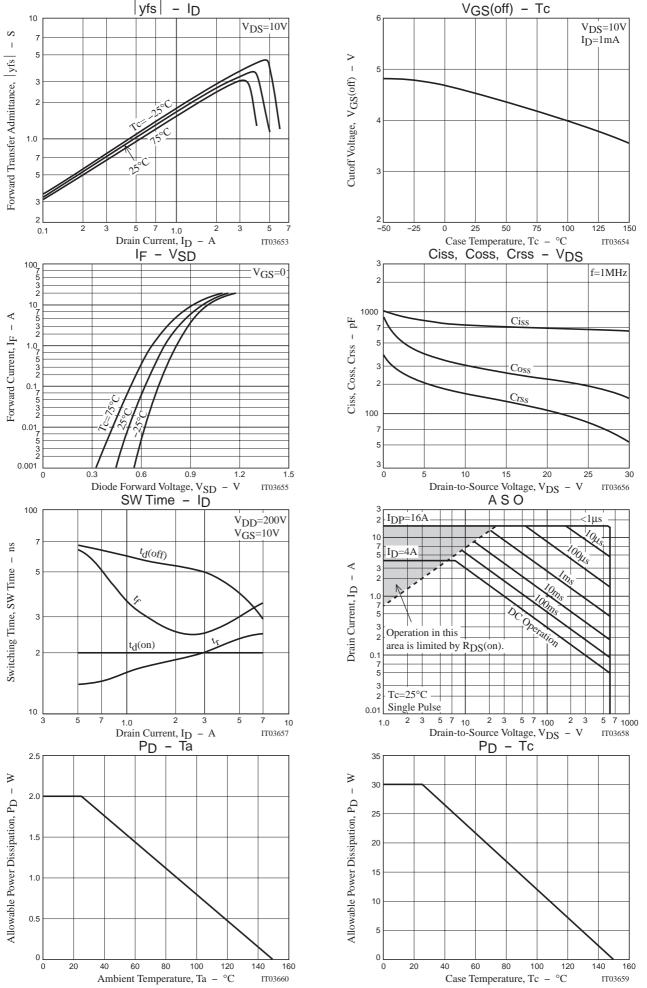
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		700		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		220		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		110		pF
Total Gate Charge	Qg	V _{DS} =200V, I _D =5A, V _{GS} =10V		20		nC
Turn-ON Delay Time	t _d (on)	See specified Test Circuit.		20		ns
Rise Time	tr	See specified Test Circuit.		20		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit.		50		ns
Fall Time	tf	See specified Test Circuit.		25		ns
Diode Forward Voltage	V _{SD}	I _S =5A, V _{GS} =0		0.88	1.2	V

Switching Time Test Circuit







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