N-Channel Silicon MOSFET

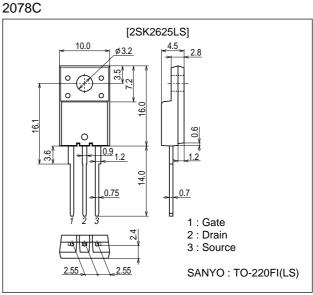


Features

- Low ON-resistance.
- Low Qg.

Package Dimensions

unit : mm



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)	۱D		4	A
Drain Current (Pulse)	IDP		16	A
Allowable Power Dissipation	De		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			Linit
			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	RDS(on)	ID=2.5A, VGS=15V		1.5	2.0	Ω
Marking : K2625 Continued on next p						next page.

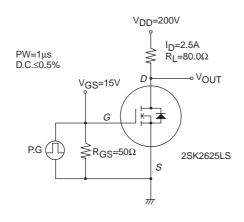
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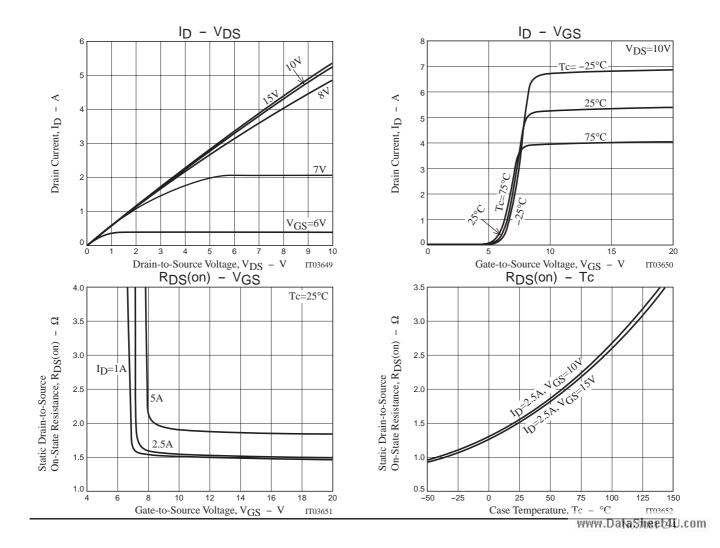
SANYO Electric Co., Ltd. Semiconductor Company TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN Continued from preceding page.

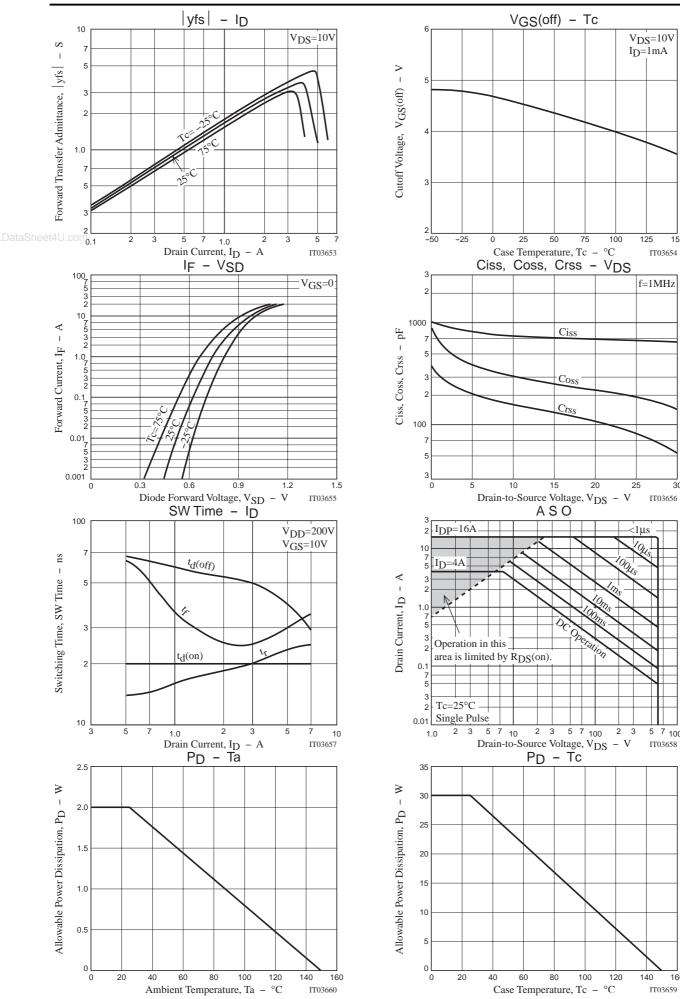
Parameter	Symbol	Conditions		Ratings		
	Symbol		min	typ	max	Unit
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		700		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		220		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		110		pF
Total Gate Charge	Qg	V _{DS} =200V, I _D =5A, V _{GS} =10V		20		nC
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}	IS=5A, VGS=0		0.88	1.2	V

Switching Time Test Circuit

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160

140

V_{DS}=10V

ID=1mA

50

Ciss

Coss

Crss

ASO

80

100

120

75

100

125

150

30

5 7 1000 IT03658

<1µs

IT03654

f=1MHz

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