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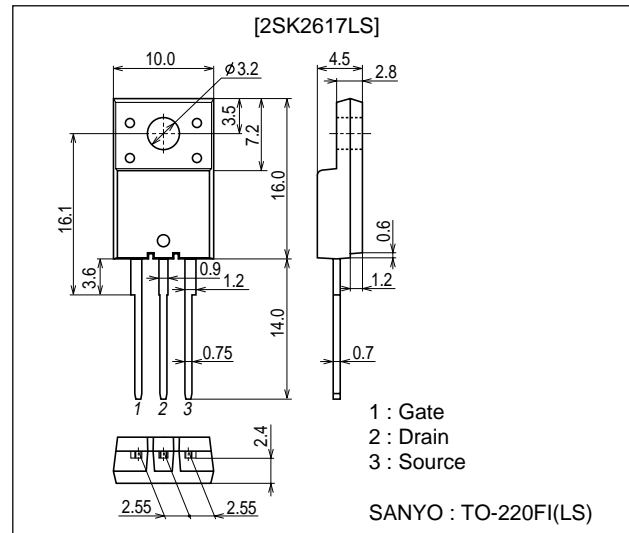
Ultrahigh-Speed Switching Applications

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}		500	V
Gate-to-Source Voltage	V _{GSS}		±30	V
Drain Current (DC)	I _D		4	A
Drain Current (Pulse)	I _{DP}		16	A
Allowable Power Dissipation	PD		2.0	W
		Tc=25°C	25	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	500			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =500V, 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 =2A	1.1	2.2		S

Marking : K2617

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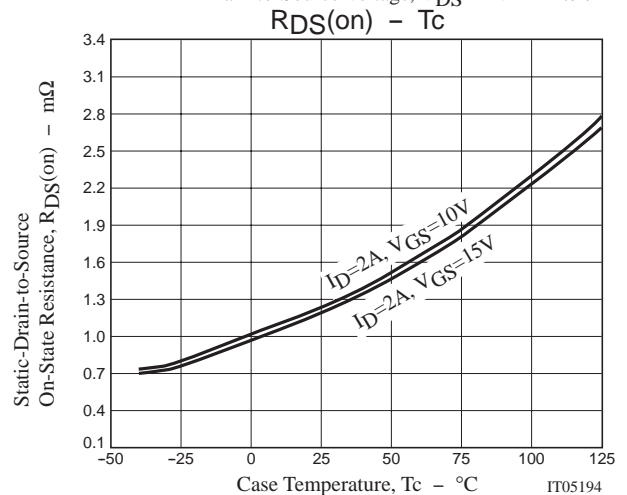
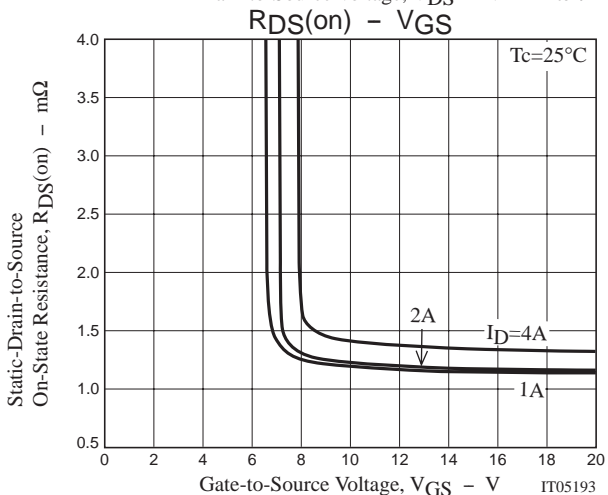
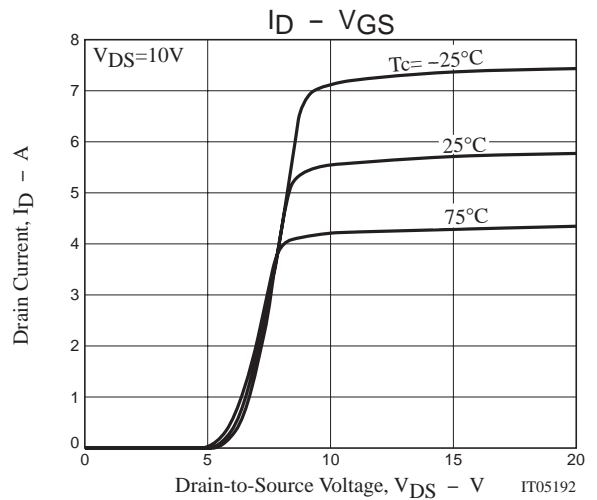
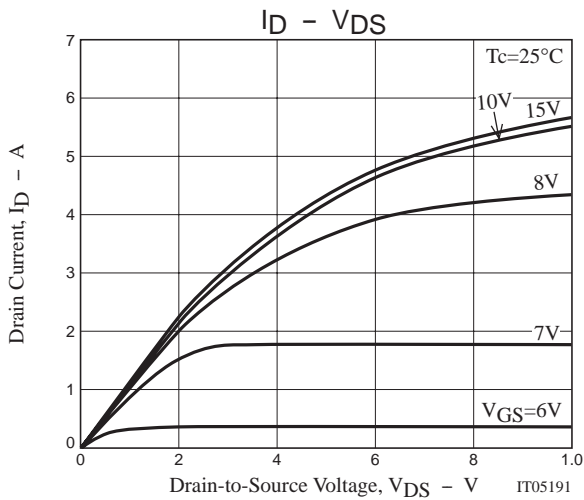
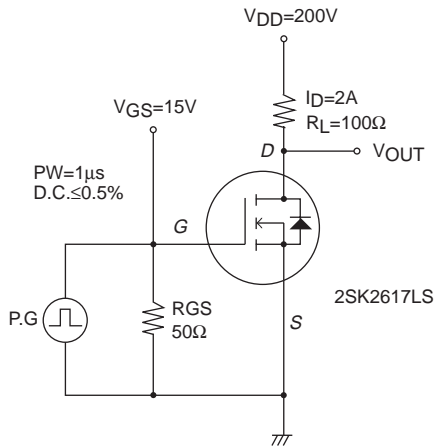
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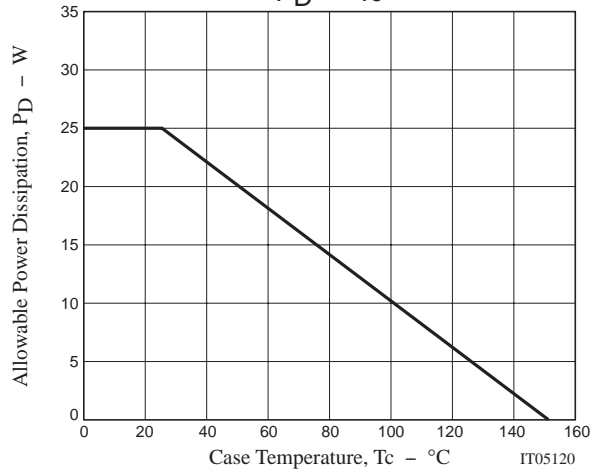
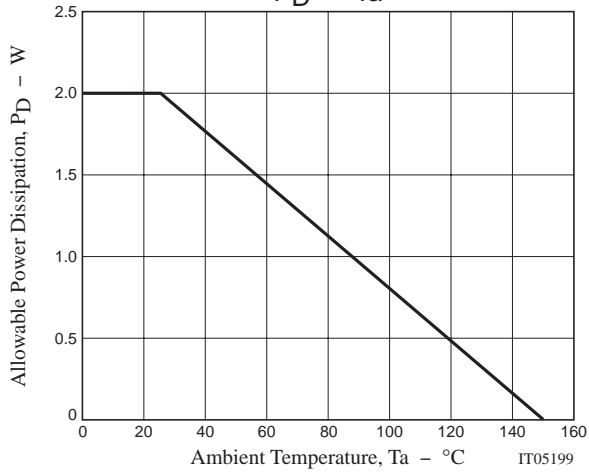
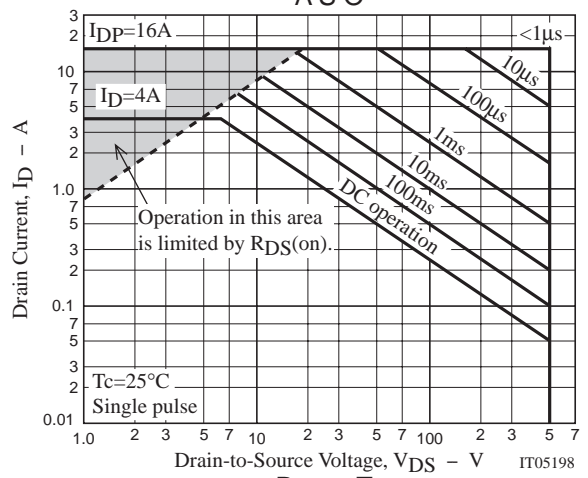
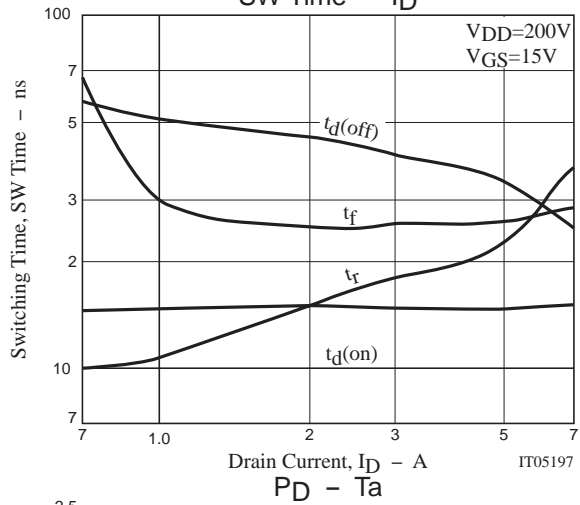
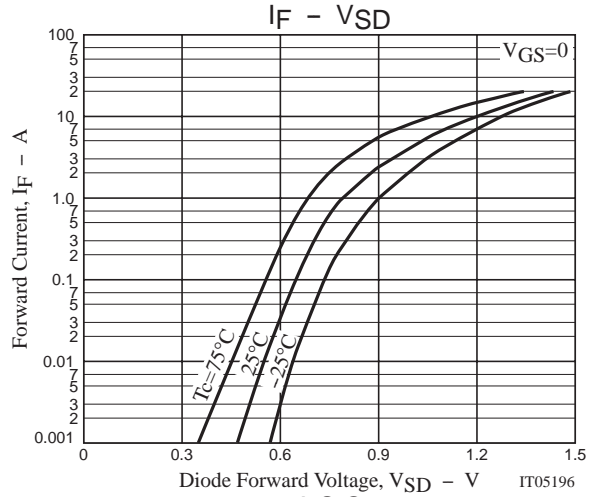
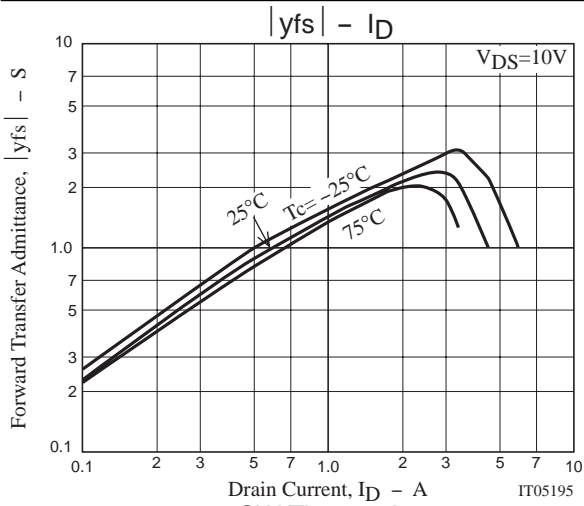
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D=2A, V_{GS}=15V$		1.2	1.6	Ω
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		550		pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$		190		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$		95		pF
Total Gate Charge	Q_g	$V_{DS}=200V, I_D=4A, V_{GS}=10V$		15		nC
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		15		ns
Rise Time	t_r	See specified Test Circuit.		15		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit.		45		ns
Fall Time	t_f	See specified Test Circuit.		25		ns
Diode Forward Voltage	V_{SD}	$I_S=4A, V_{GS}=0$		0.95	1.2	V

Switching Time Test Circuit



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