

N-Channel Silicon MOSFET

2SK2616

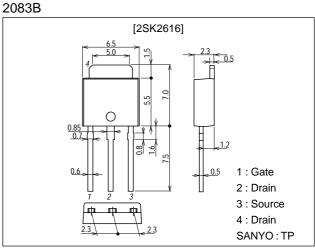
Ultrahigh-Speed Switching Applications

Features

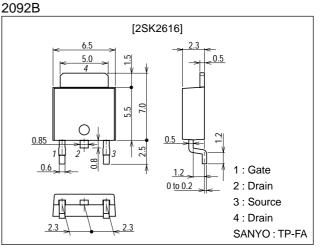
Low ON-resistance.
Low Qg.

Package Dimensions

unit:mm



unit:mm



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Specifications

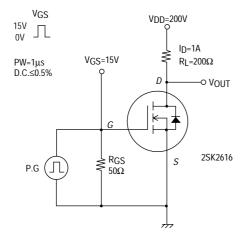
Absolute Maximum Ratings at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	VDSS		500	V
Gate-to-Source Voltage	V _{GSS}		±30	V
Drain Current (DC)	Ι _D		2	A
Drain Current (Pulse)	I _{DP}		8	A
Allowable Power Dissipation	D-		1	W
	PD	Tc=25°C	30	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

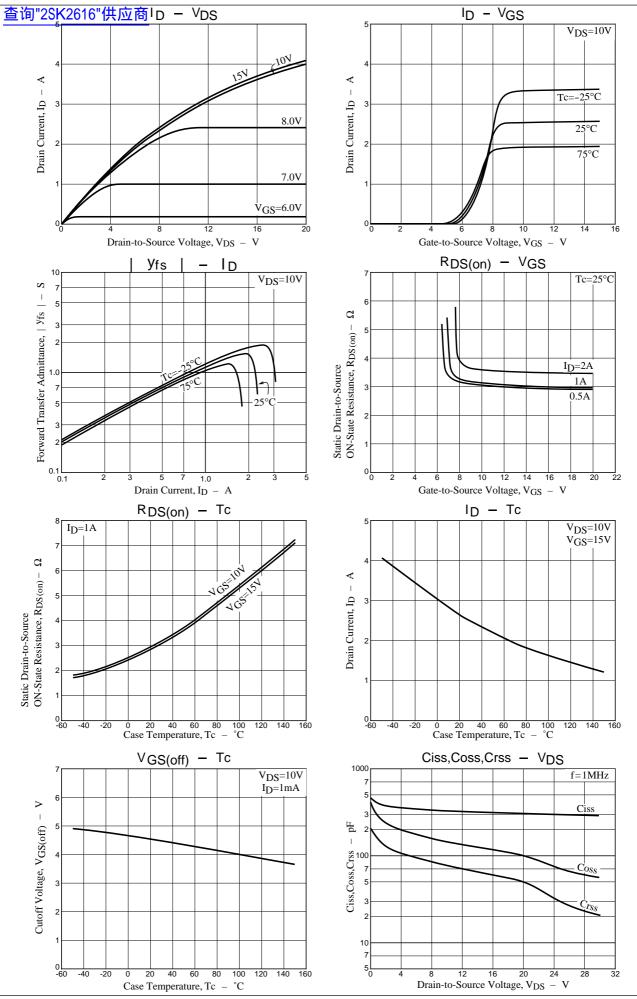
Electrical Characteristics at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings			1.1
			min	typ	max	Unit
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0	500			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =500V, V _{GS} =0			1.0	mA
Gate-to-Source Leakage Current	IGSS	V _{GS} =±30V, V _{DS} =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 =1A	0.55	1.1		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D =1A, V _{GS} =15V		3.0	4.0	Ω
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		300		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		100		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		50		pF
Total Gate Charge	Qg	V _{DS} =200V, I _D =2A, V _{GS} =10V		8		nC
Turn-ON Delay Time	^t d(on)	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		13		ns
Turn-OFF Delay Time	^t d(off)	See specified Test Circuit		20		ns
Fall Time	t _f	See specified Test Circuit		17		ns
Diode Forward Voltage	V _{SD}	I _S =2A, V _{GS} =0			1.2	V

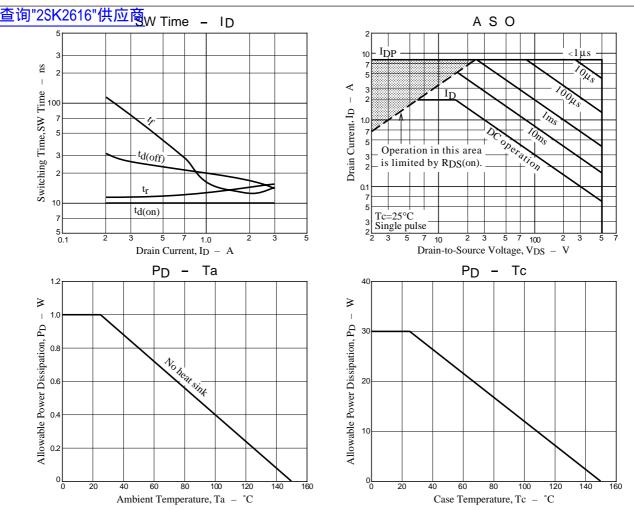
Switching Time Test Circuit



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