2SK3488



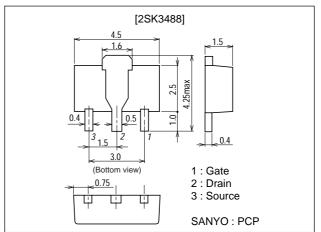
Ultrahigh-Speed Switching Applications

Features

- · Low ON-resistance.
- · Ultrahigh-speed switching.
- 4V drive.

Package Dimensions

unit : mm 2062A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	VDSS		30	V
Gate-to-Source Voltage	VGSS		±20	V
Drain Current (DC)	ID		2.5	Α
Drain Current (Pulse)	IDP	PW≤10μs, duty cycle≤1%	10	Α
Allowable Power Dissipation	PD	Mounted on a ceramic board (250mm ² X0.8mm)	1.0	W
	""	Tc=25°C	3.5	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Uill
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0	30			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =30V, V _{GS} =0			1	μΑ
Gate-to-Source Leakage Current	IGSS	V _{GS} =±16V, V _{DS} =0			±10	μΑ
Cutoff Voltage	VGS(off)	VDS=10V, ID=1mA	1.2		2.6	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =1.3A	1.6	2.3		S
Static Drain-to-Source On-State Resistance	R _{DS} (on)1	I _D =1.3A, V _G S=10V		125	160	mΩ
	RDS(on)2	ID=0.7A, VGS=4V		200	280	mΩ

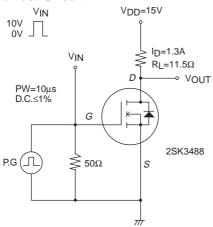
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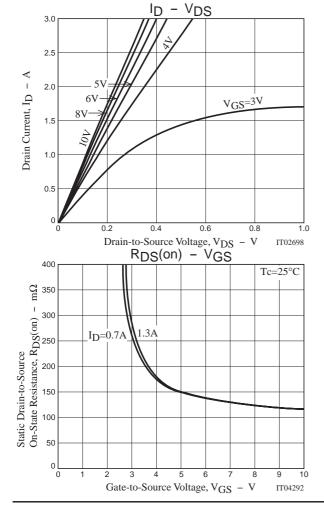
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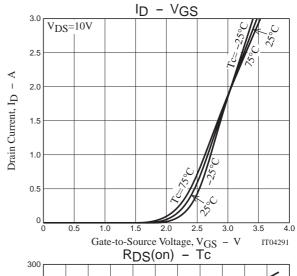
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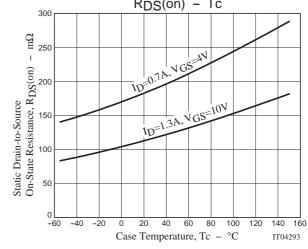
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Uill
Input Capacitance	Ciss	V _{DS} =10V, f=1MHz		120		pF
Output Capacitance	Coss	V _{DS} =10V, f=1MHz		30		pF
Reverse Transfer Capacitance	Crss	V _{DS} =10V, f=1MHz		15		pF
Turn-ON Delay Time	t _d (on)	See specified Test Circuit.		6		ns
Rise Time	t _r	See specified Test Circuit.		5		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit.		17		ns
Fall Time	tf	See specified Test Circuit.		5		ns
Total Gate Charge	Qg	V _{DS} =10V, V _{GS} =10V, I _D =2.5A		3.6		nC
Gate-to-Source Charge	Qgs	V _{DS} =10V, V _{GS} =10V, I _D =2.5A		0.6		nC
Gate-to-Drain "Miller" Charge	Qgd	V _{DS} =10V, V _{GS} =10V, I _D =2.5A		0.5		nC
Diode Forward Voltage	V _{SD}	I _S =2.5A, V _{GS} =0		0.9	1.2	V

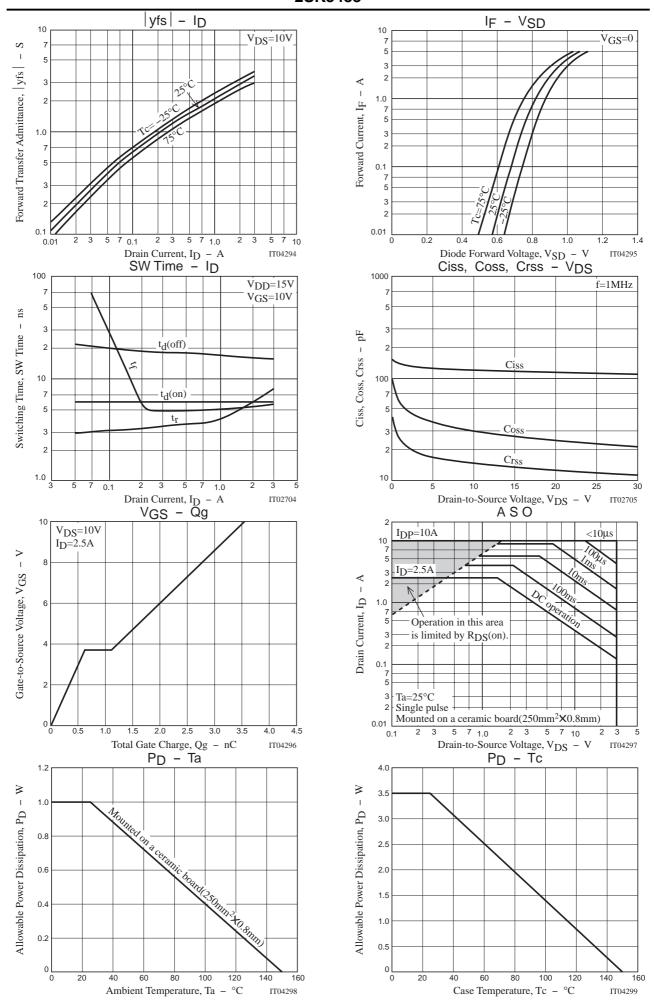
Switching Time Test Circuit











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