



Ultrahigh-Speed Switching Applications

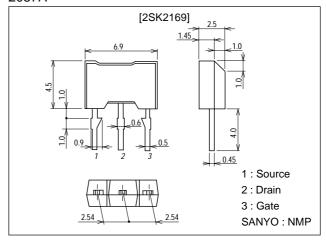
Features

- · Low ON resistance.
- · Ultrahigh-speed switching.
- · Low-voltage drive.

Package Dimensions

unit:mm

2087A



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		250	V
Gate-to-Source Voltage	V _{GSS}		±20	V
Drain Current (DC)	I _D		400	mA
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	1.6	Α
Allowable Power Dissipation	PD		1	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	Offic
Drain-to-Source Breakdown Voltage	V(BR)DSS	I _D =1mA, V _{GS} =0	250			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =250V, V _{GS} =0			100	μA
Gate-to-Source Leakage Current	IGSS	V _{GS} =±18V, V _{DS} =0			±10	μA
Cutoff Voltage	VGS(off)	V _{DS} =10V, I _D = 1mA	1.5		2.5	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =200mA	0.4	0.6		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D =200mA, V _{GS} =10V		3.5	5	Ω

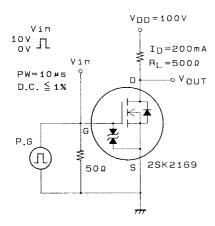
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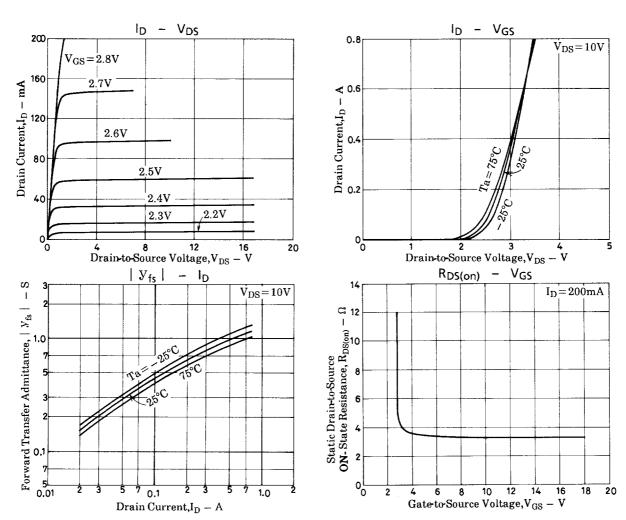
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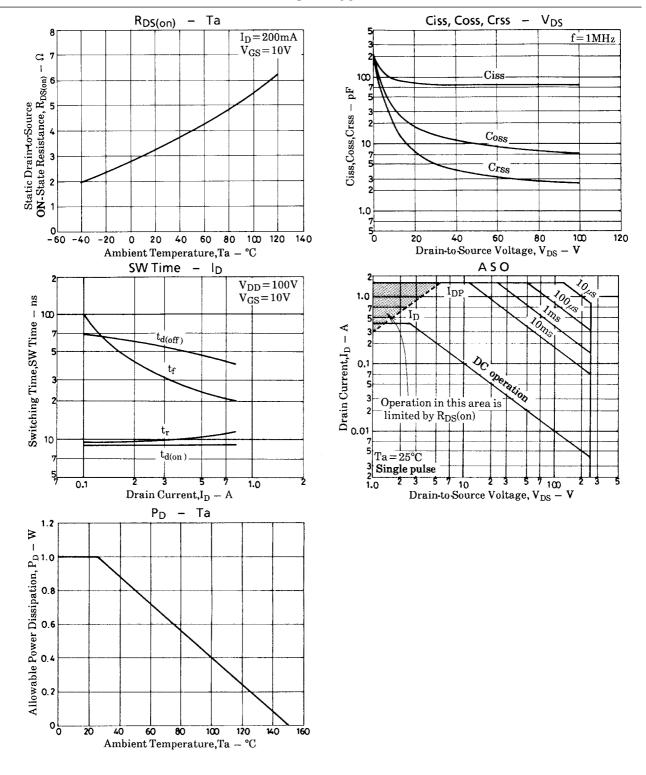
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oill
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		80		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		20		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		8		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		10		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit		65		ns
Fall Time	t _f	See specified Test Circuit		40		ns
Diode Forward Voltage	V _{SD}	I _S =400mA, V _{GS} =0		0.9		V

Switching Time Test Circuit







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