



2SK2167 — N-Channel Silicon MOSFET

General-Purpose Switching Device Applications

Features

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

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	A
Allowable Power Dissipation	P _D	Tc=25°C	3.5	W
		Mounted on a ceramic board (600mm ² X0.8mm)	1.3	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} =0V	250			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =250V, V _{GS} =0V			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±18V, V _{DS} =0V			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	1.5		2.5	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, I _D =200mA	270	400		mS
Static Drain-to-Source On-State Resistance	R _{DS(on)}	I _D =200mA, V _{GS} =10V		8	12	Ω
Input Capacitance	C _{iss}	V _{DS} =20V, f=1MHz		37		pF
Output Capacitance	C _{oss}	V _{DS} =20V, f=1MHz		10		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =20V, f=1MHz		4		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.		35		ns
Fall Time	t _f	See specified Test Circuit.		45		ns
Diode Forward Voltage	V _{SD}	I _S =400mA, V _{GS} =0V		1.0		V

Marking : KK

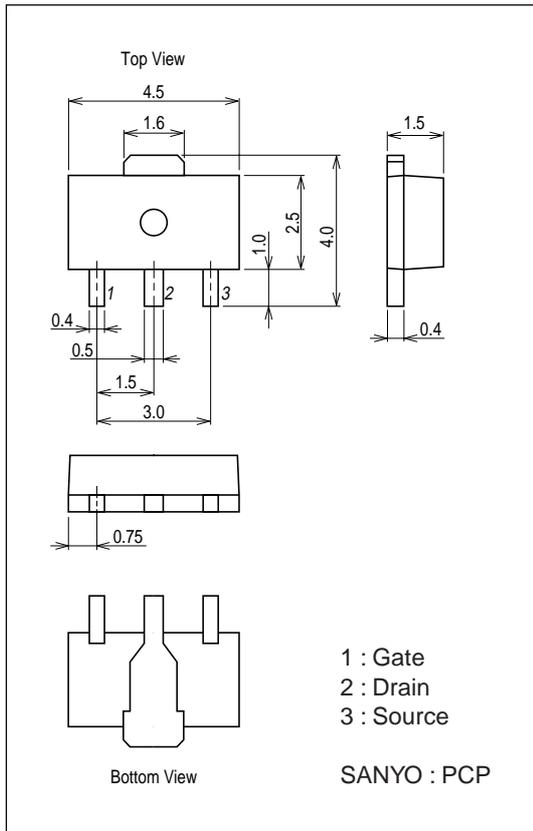
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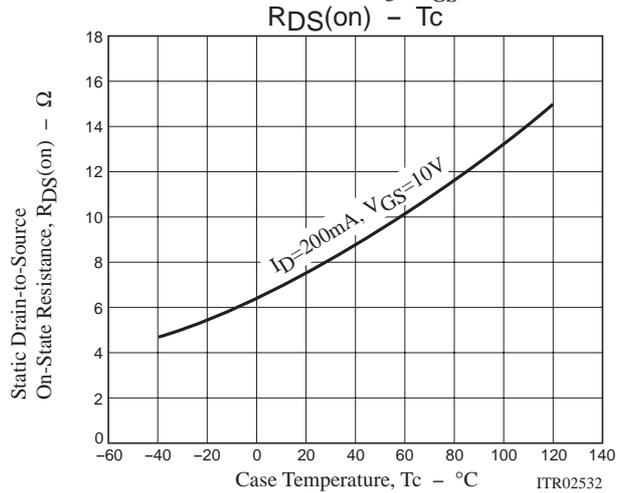
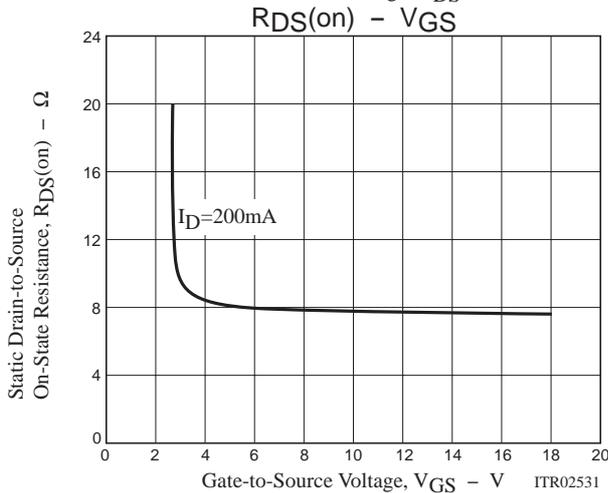
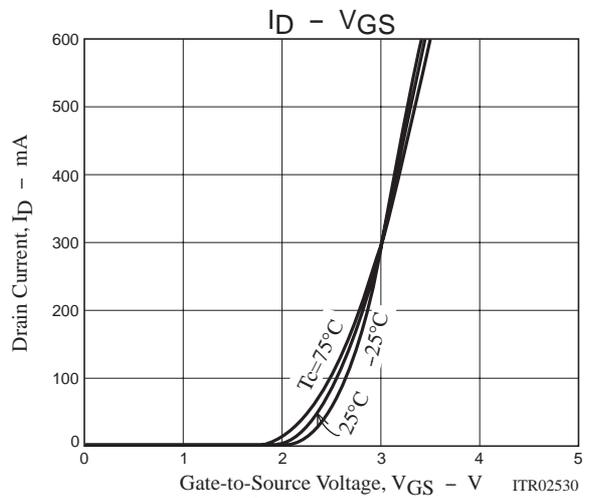
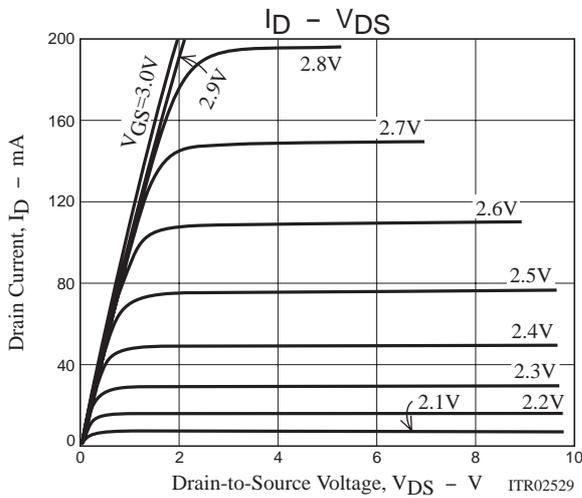
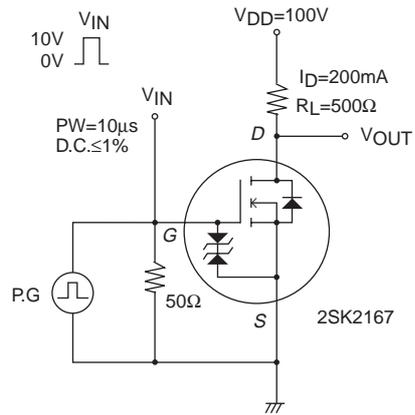
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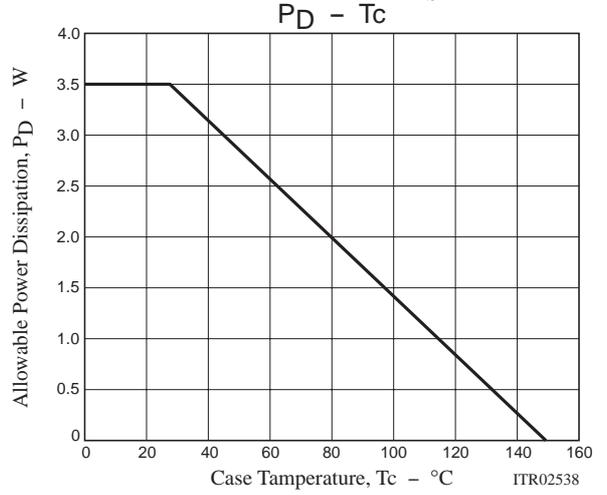
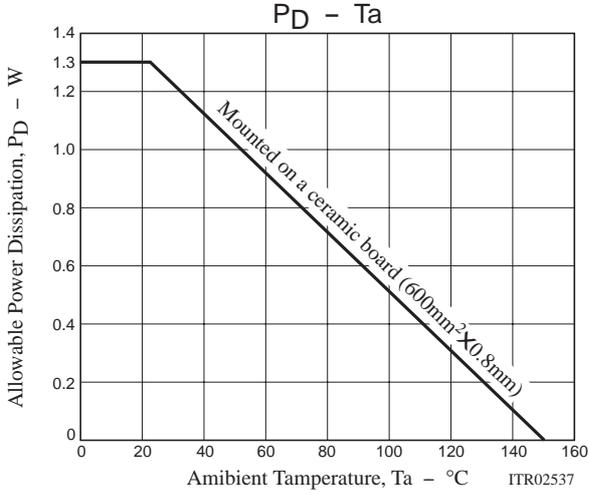
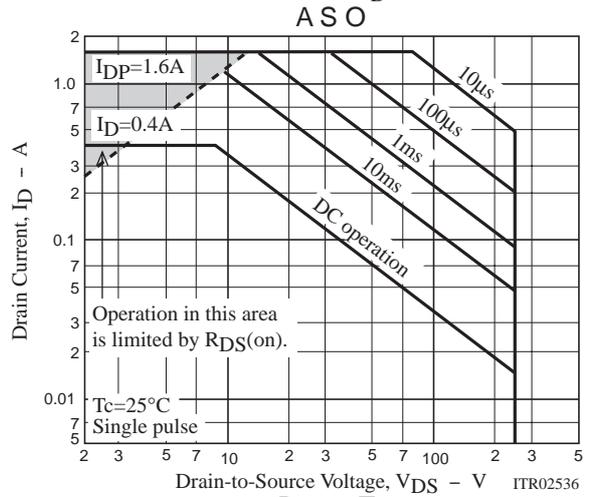
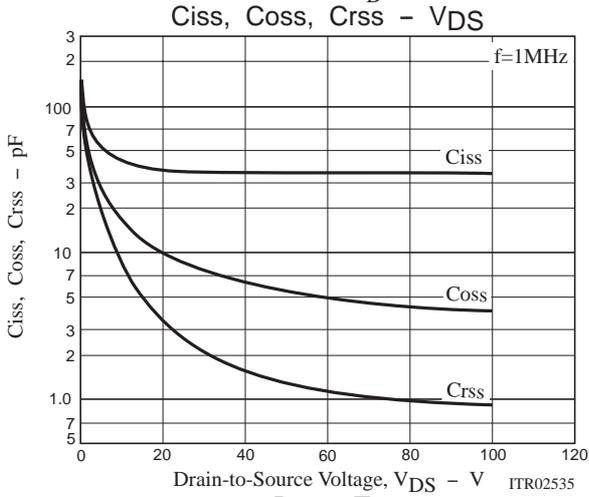
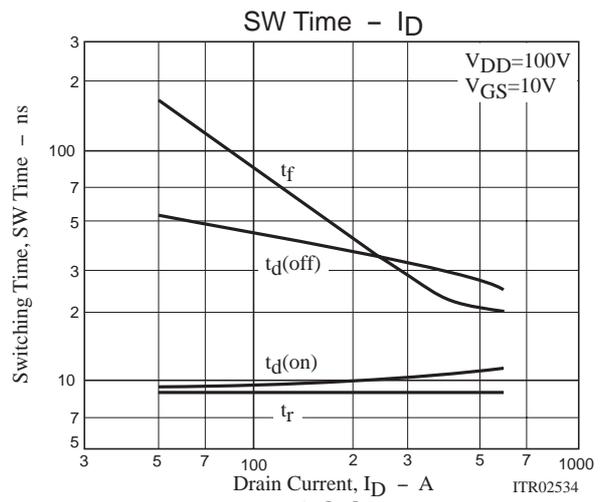
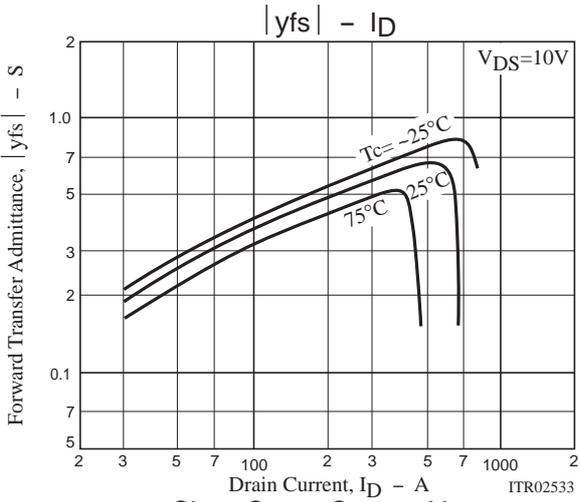
Package Dimensions

unit : mm (typ)
7007A-003



Switching Time Test Circuit





Note on usage : Since the 2SK2167 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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