

2SK1463

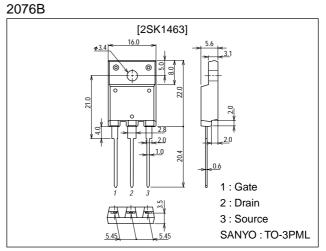
Ultrahigh-Speed Switching Applications

Features

- · Low ON-state resistance.
- · Ultrahigh-speed switching.
- \cdot Converters.

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		900	V
Gate-to-Source Voltage	VGSS		±30	V
Drain Current (DC)	۱ _D		4.5	A
Drain Current (Pulse)	I _{DP}	PW≤10µs, duty cycle≤1%	9	A
Allowable Power Dissipation	PD	Tc=25°C	60	W
	U ' D		3.0	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Symbol	Conditions	Ratings			Unit
		min	typ	max	Onit
V(BR)DSS	I _D =1mA, V _{GS} =0	900			V
IDSS	V _{DS} =900V, V _{GS} =0			1.0	mA
IGSS	V _{GS} =±30V, V _{DS} =0			±100	nA
VGS(off)	V _{DS} =10V, I _D =1mA	2.0		3.0	V
yfs	V _{DS} =20V, I _D =2A	1.0	2.0		S
R _{DS(on)}	I _D =2A, V _{GS} =10V		2.8	3.6	Ω
	V(BR)DSS IDSS IGSS VGS(off) yfs	V(BR)DSS ID=1mA, VGS=0 IDSS VDS=900V, VGS=0 IGSS VGS=±30V, VDS=0 VGS(off) VDS=10V, ID=1mA I yfs VDS=20V, ID=2A	V(BR)DSS ID=1mA, VGS=0 900 IDSS VDS=900V, VGS=0 900 IGSS VGS=±30V, VDS=0 900 VGS(off) VDS=10V, ID=1mA 2.0 I yfs VDS=20V, ID=2A 1.0	Symbol Conditions min typ V(BR)DSS Ip=1mA, V_GS=0 900 900 IDSS VDS=900V, V_GS=0 1000 1000 IGSS VGS=±30V, VDS=0 1000 1000 VGS(off) VDS=10V, Ip=1mA 2.00 1000 I yfs VDS=20V, Ip=2A 1.000 2.000	Symbol Conditions min typ max V(BR)DSS ID=1mA, VGS=0 900 900 1.0 IDSS VDS=900V, VGS=0 1.0 1.0 1.0 IGSS VGS=±30V, VDS=0 ±100 1.0 VGS(off) VDS=10V, ID=1mA 2.0 3.0 I yfs I VDS=20V, ID=2A 1.0 2.0

(Note) Be careful in handling the 2SK1463 because it has no protection diode between gate and source.

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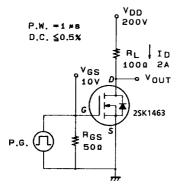
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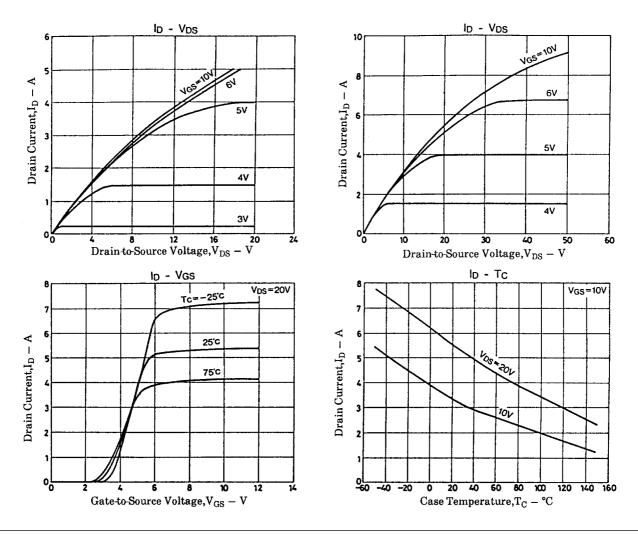
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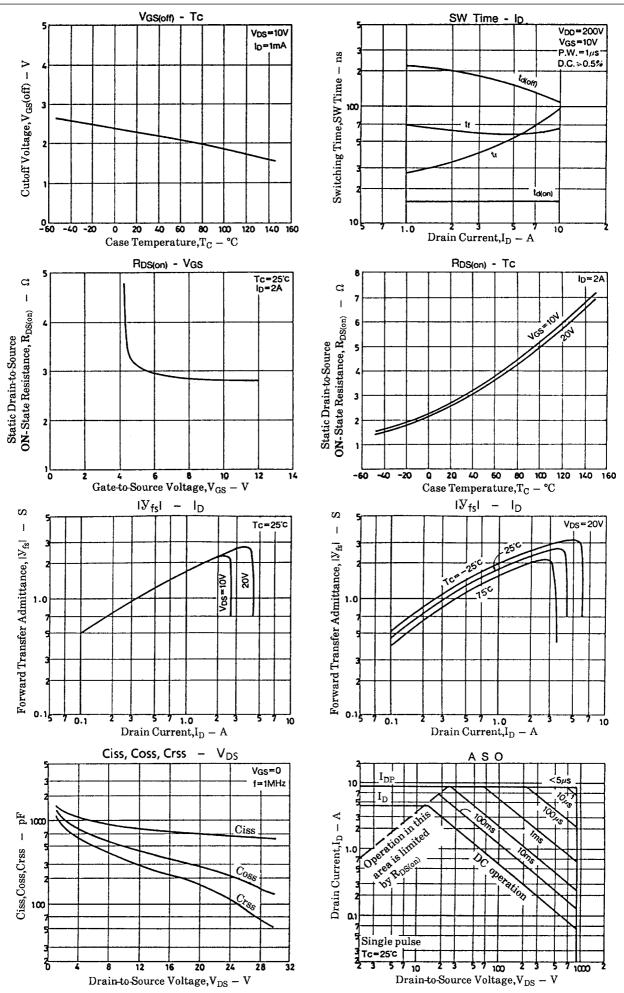
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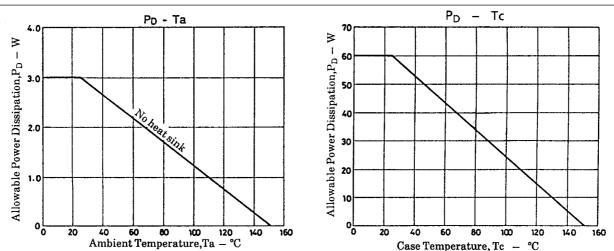
Parameter	Symbol	Conditions	Ratings			Unit
Faranielei			min	typ	max	Unit
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		700		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		300		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		170		pF
Turn-ON Delay Time	^t d(on)	$I_D=2A$, $V_{GS}=10V$, $V_{DD}=200V$, $R_{GS}=50\Omega$		15		ns
Rise Time	t _r	$I_D=2A$, $V_{GS}=10V$, $V_{DD}=200V$, $R_{GS}=50\Omega$		35		ns
Turn-OFF Delay Time	^t d(off)	$I_D=2A$, $V_{GS}=10V$, $V_{DD}=200V$, $R_{GS}=50\Omega$		200		ns
Fall Time	t _f	$I_D=2A$, $V_{GS}=10V$, $V_{DD}=200V$, $R_{GS}=50\Omega$		65		ns
Diode Forward Voltage	V _{SD}	I _S =4.5A, V _{GS} =0			1.8	V

Switching Time Test Circuit









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