



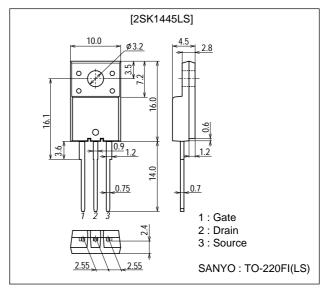
Ultrahigh-Speed Switching Applications

Features

- · Low ON-resistance.
- · Ultrahigh-speed switching.
- · Micaless package facilitating mounting.

Package Dimensions

unit : mm 2078C



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	VDSS		450	V
Gate-to-Source Voltage	VGSS		±30	V
Drain Current (DC)	ΙD		5	Α
Drain Current (Pulse)	IDP	PW≤10μs, duty cycle≤1%	20	Α
Allowable Power Dissipation	Do		2.0	W
	PD	Tc=25°C	30	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	I _D =1mA, V _{GS} =0	450			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =450V, V _{GS} =0			1.0	mA
Gate-to-Source Leakage Current	IGSS	V _{GS} =±30V, V _{DS} =0			±100	nA

 $(Note)\ Be\ careful\ in\ handling\ the\ 2SK1445LS\ because\ it\ has\ no\ protection\ diode\ between\ gate\ and\ source.$

Continued on next page.

Marking: K1445

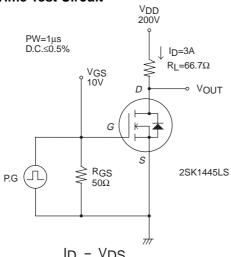
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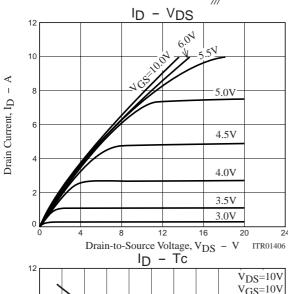
2SK1445LS

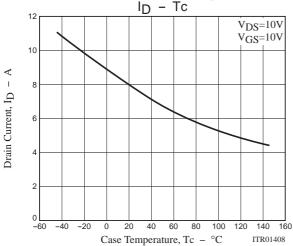
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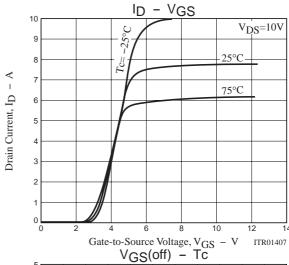
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Uill
Cutoff Voltage	VGS(off)	V _{DS} =10V, I _D =1mA	2.0		3.0	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =3A	2.0	4.0		S
Static Drain-to-Source On-State Resistance	RDS(on)	ID=3A, VGS=10V		1.0	1.4	Ω
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		700		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		100		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		40		pF
Turn-ON Delay Time	t _d (on)	I _D =3A, V _G S=10V, V _{DD} =200V, R _G S=50Ω		15		ns
Rise Time	t _r	I _D =3A, V _{GS} =10V, V _{DD} =200V, R _{GS} =50Ω		30		ns
Turn-OFF Delay Time	t _d (off)	I _D =3A, V _{GS} =10V, V _{DD} =200V, R _{GS} =50Ω		130		ns
Fall Time	tf	I _D =3A, V _G S=10V, V _{DD} =200V, R _G S=50Ω		45		ns
Diode Forward Voltage	V _{SD}	I _S =5A, V _{GS} =0			1.8	V

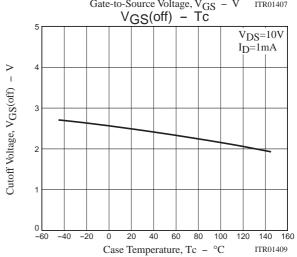
Switching Time Test Circuit

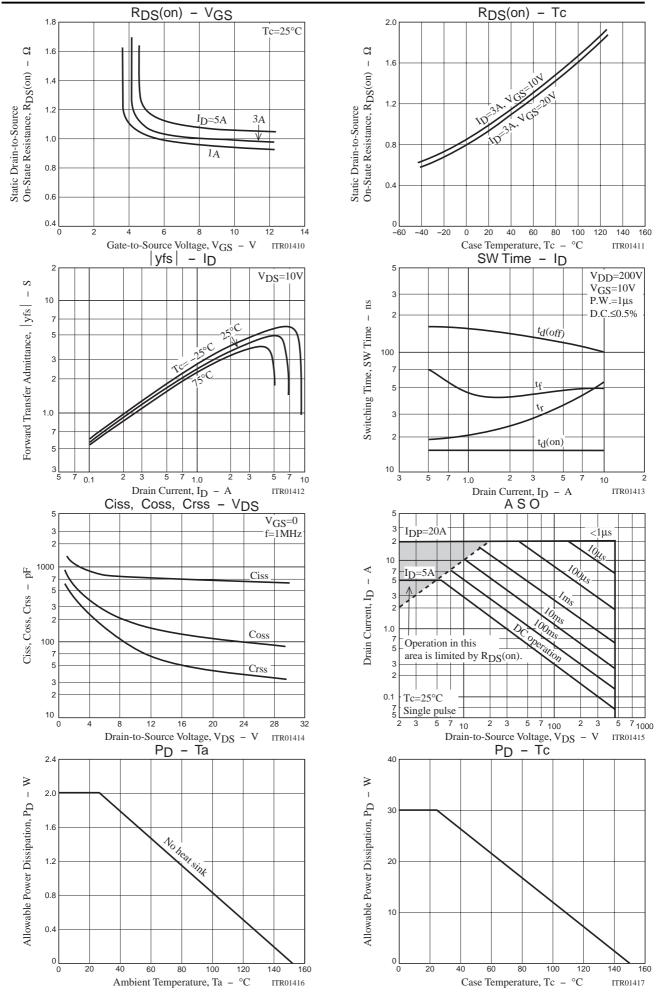












2SK1445LS

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