

Ordering number : ENN3461B

N-Channel Silicon MOSFET

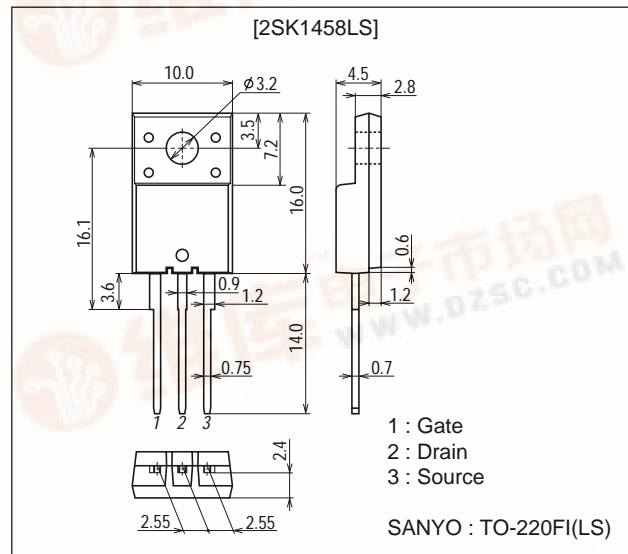
SANYO**2SK1458LS****Ultrahigh-Speed Switching Applications****Features**

- 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	V _{DSS}		900	V
Gate-to-Source Voltage	V _{GSS}		±30	V
Drain Current (DC)	I _D		0.2	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	0.4	A
Allowable Power Dissipation	P _D	Tc=25°C	2.0	W
			20	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} =0	900			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _D =900V, V _{GS} =0			1.0	mA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±30V, V _D =0			±100	nA
Cutoff Voltage	V _{GS(off)}	V _D =10V, I _D =1mA	2.0		3.0	V
Forward Transfer Admittance	y _{fs}	V _D =20V, I _D =0.1A	0.08	0.15		S

Marking : K1458

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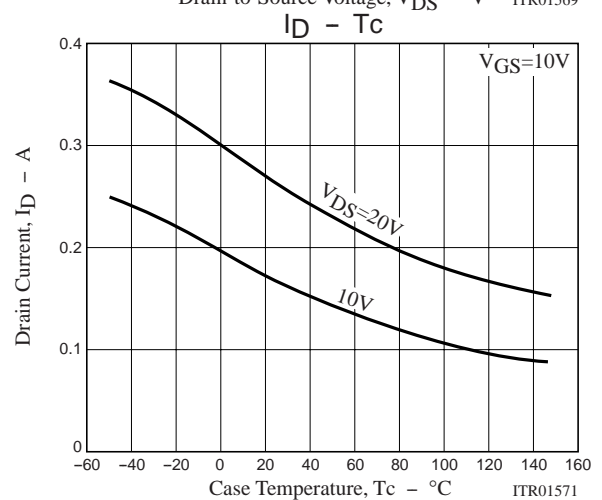
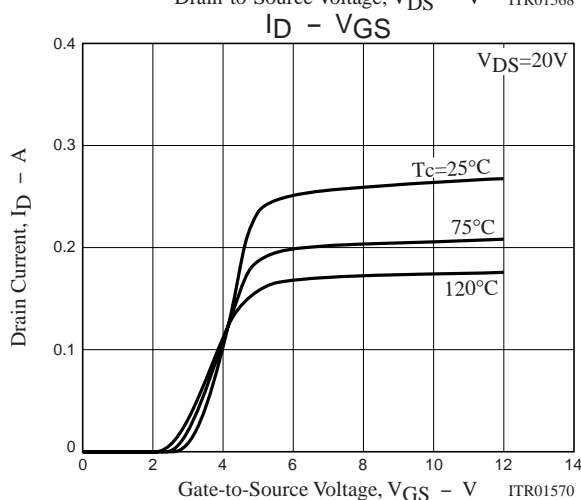
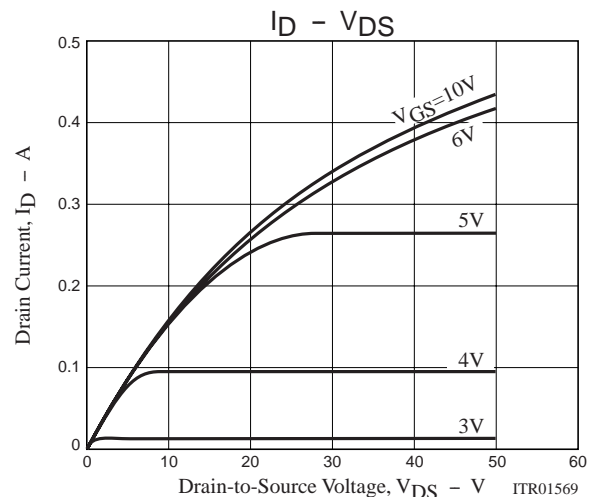
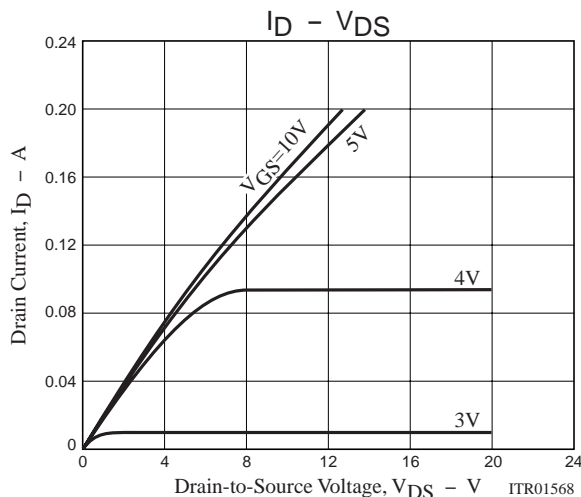
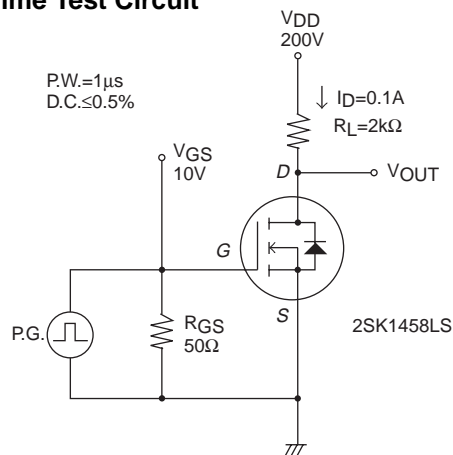
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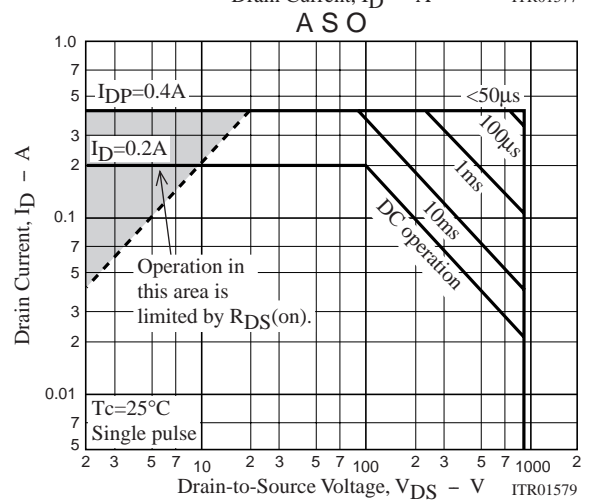
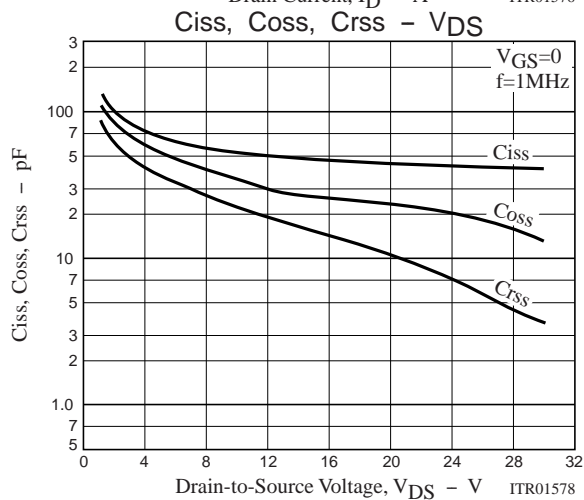
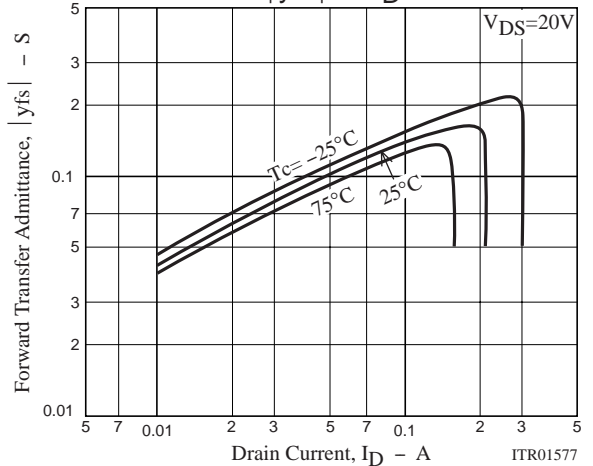
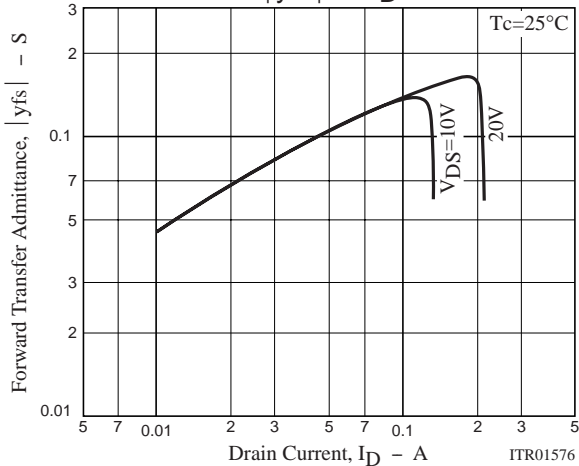
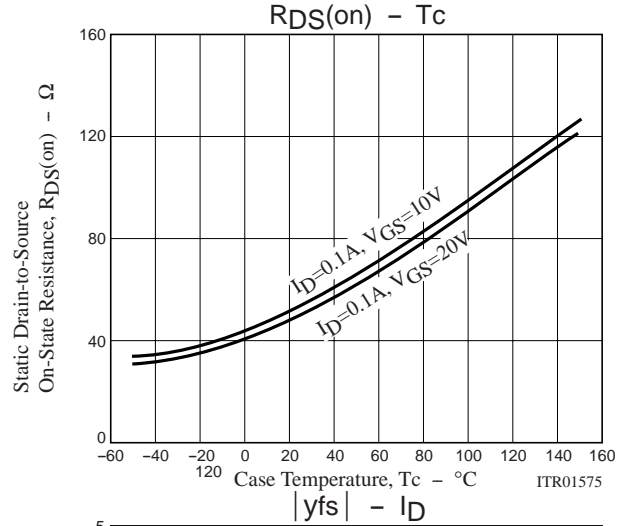
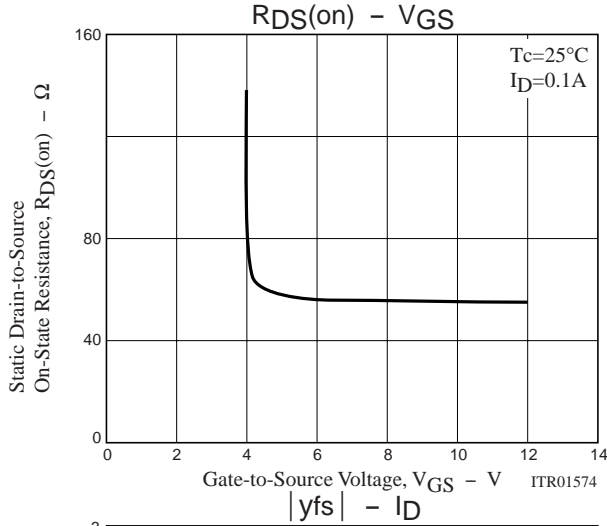
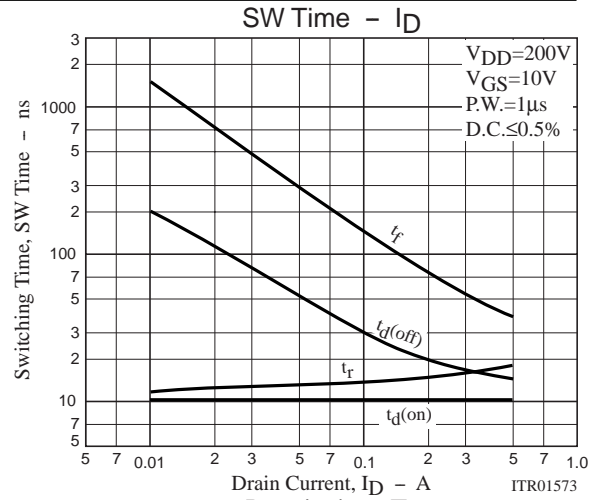
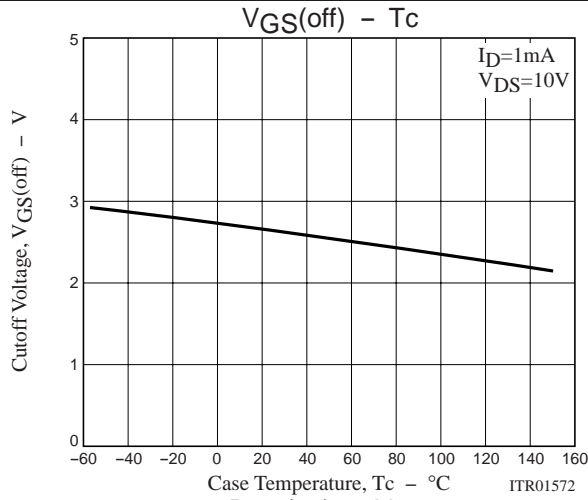
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D=0.1A, V_{GS}=10V$		50	70	Ω
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		45		pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$		25		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$		10		pF
Turn-ON Delay Time	$t_d(on)$	$I_D=0.1A, V_{GS}=10V, V_{DD}=200V, R_{GS}=50\Omega$		10		ns
Rise Time	t_r	$I_D=0.1A, V_{GS}=10V, V_{DD}=200V, R_{GS}=50\Omega$		15		ns
Turn-OFF Delay Time	$t_d(off)$	$I_D=0.1A, V_{GS}=10V, V_{DD}=200V, R_{GS}=50\Omega$		30		ns
Fall Time	t_f	$I_D=0.1A, V_{GS}=10V, V_{DD}=200V, R_{GS}=50\Omega$		180		ns
Diode Forward Voltage	V_{SD}	$I_S=0.2A, V_{GS}=0$			1.8	V

(Note) Be careful in handling the 2SK1458LS because it has no protection diode between gate and source.

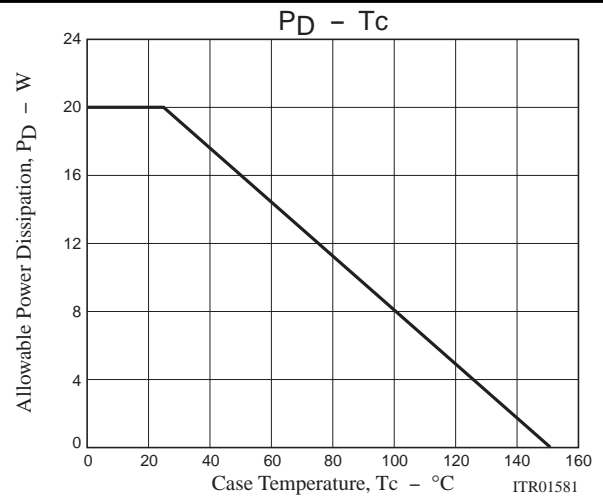
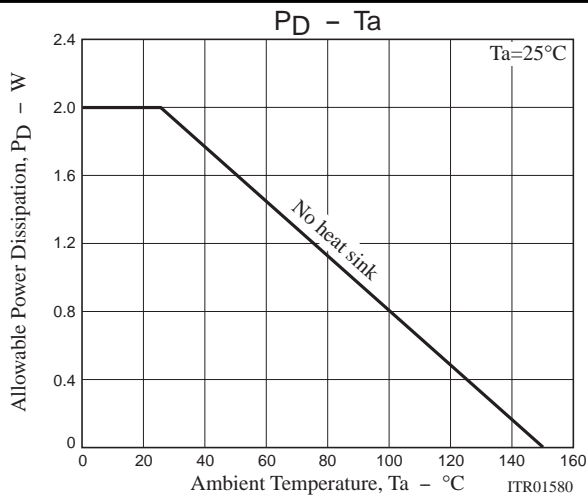
Switching Time Test Circuit



2SK1458LS



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