



2SJ466

Ultrahigh-Speed Switching Applications

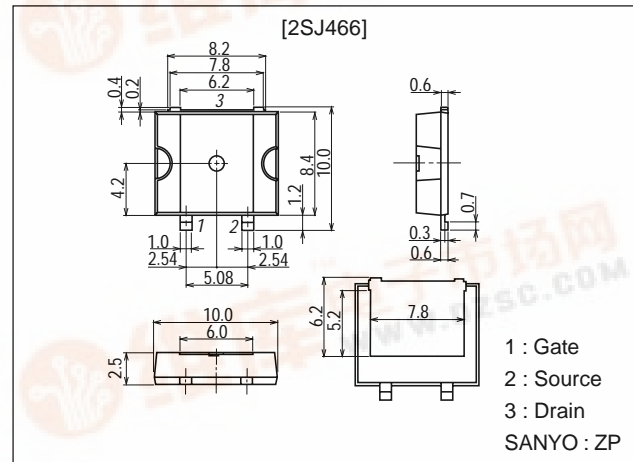
Features

- Low ON resistance.
- Ultrahigh-speed switching.
- 4V drive.
- Enables simplified fabrication, high-density mounting, and miniaturization in end products due to the surface mountable package.

Package Dimensions

unit:mm

2128



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-30	V
Gate-to-Source Voltage	V _{GSS}		±20	V
Drain Current (DC)	I _D		-35	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-140	A
Allowable Power Dissipation	P _D	Tc=25°C	50	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	-30			V
Gate-to-Source Breakdown Voltage	V _{(BR)GSS}	I _G =±100μA, V _{DS} =0	±20			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-30V, V _{GS} =0			-100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±16V, V _{DS} =0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-1.0		-2.0	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-18A	16	27		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D =-18A, V _{GS} =-10V		20	30	mΩ
		I _D =-18A, V _{GS} =-4V		30	40	mΩ

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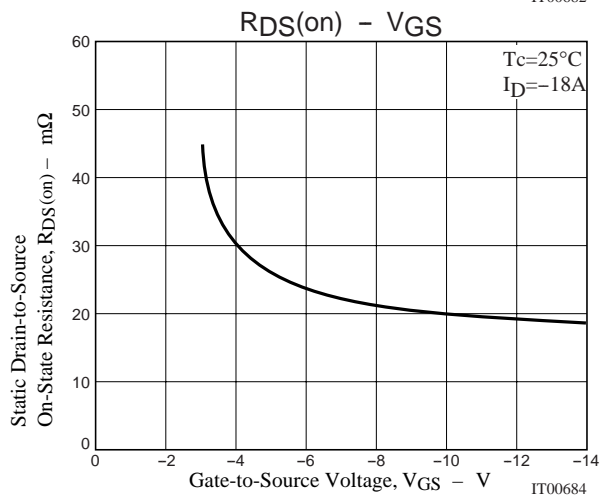
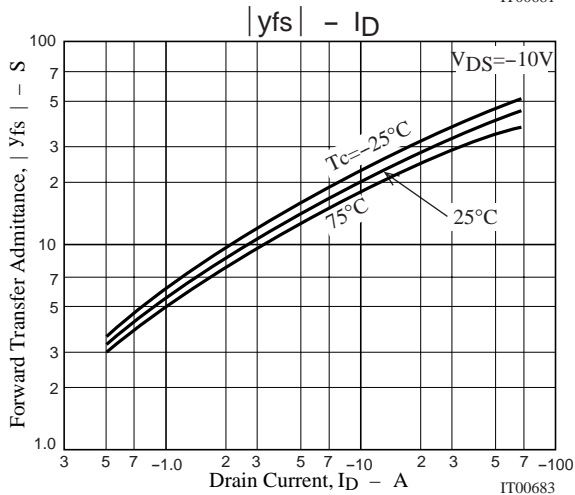
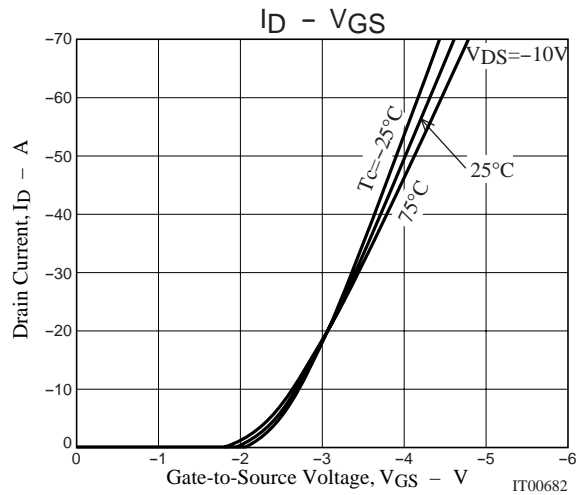
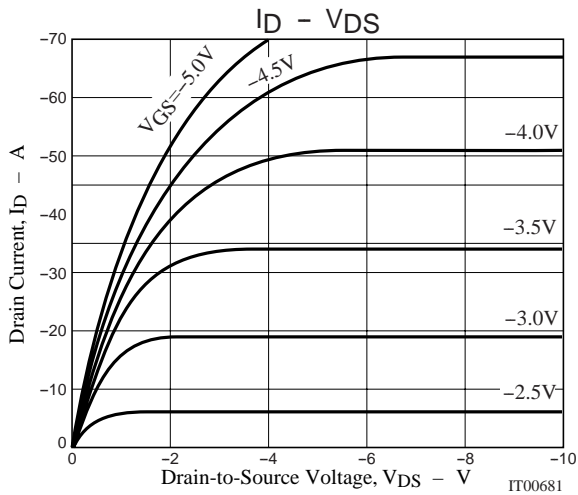
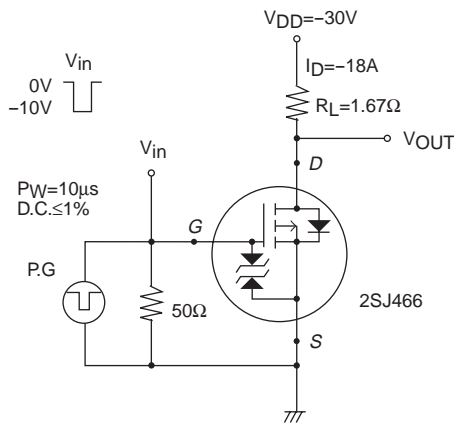


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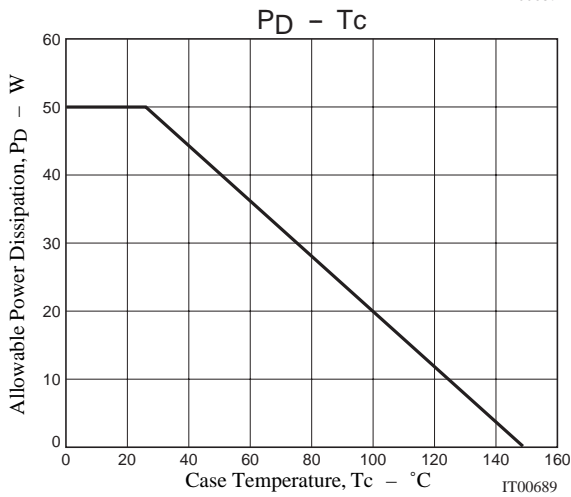
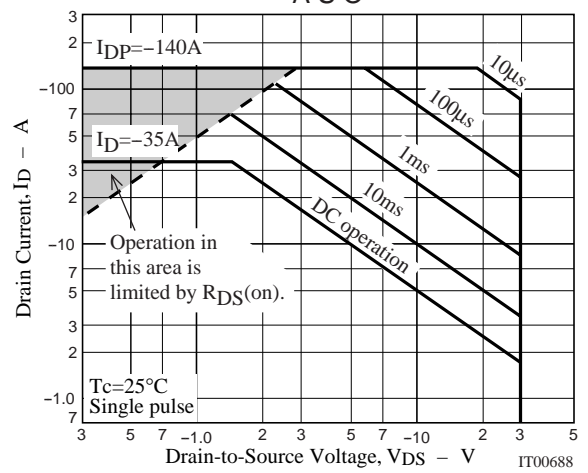
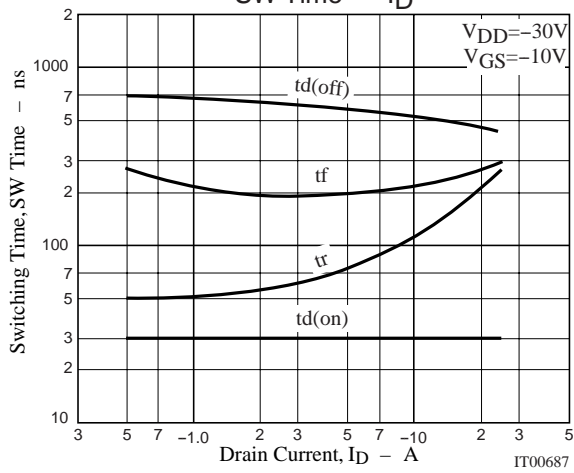
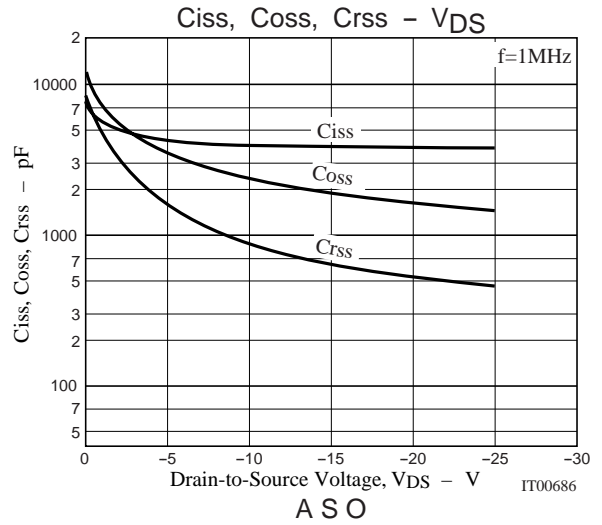
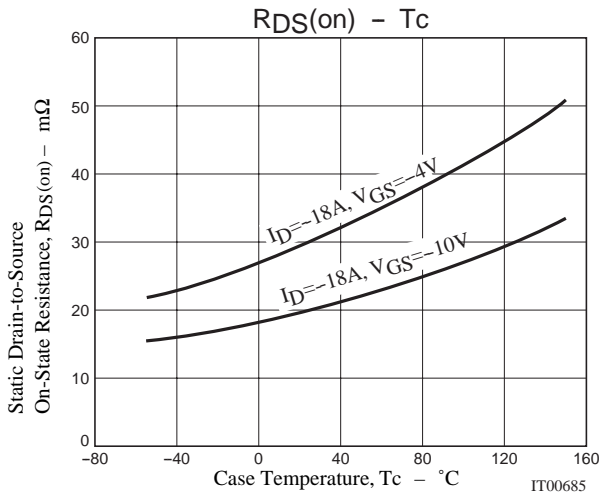
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C_{iss}	$V_{DS}=-10V, f=1MHz$		4000		pF
Output Capacitance	C_{oss}	$V_{DS}=-10V, f=1MHz$		2400		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=-10V, f=1MHz$		880		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		30		ns
Rise Time	t_r	See specified Test Circuit		200		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit		500		ns
Fall Time	t_f	See specified Test Circuit		270		ns
Diode Forward Voltage	V_{SD}	$I_S=-35A, V_{GS}=0$		-1.0	-1.5	V

Switching Time Test Circuit



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