

2SJ146

Silicon P-Channel MOS FET

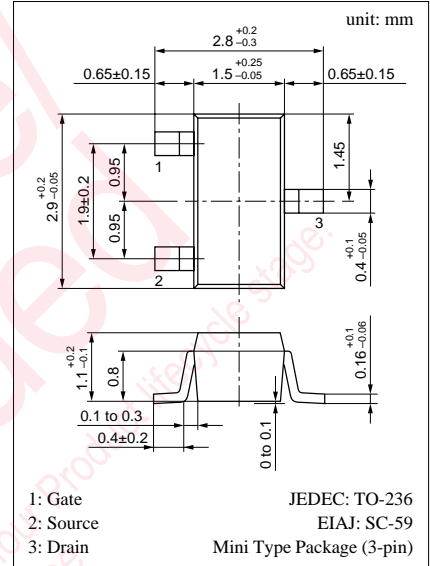
For switching

■ Features

- High-speed switching
- Mini-type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

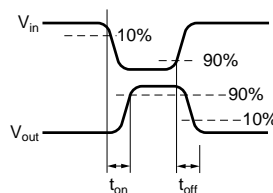
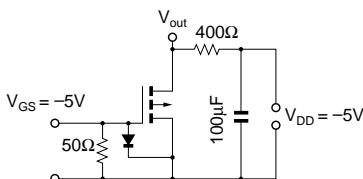
Parameter	Symbol	Ratings	Unit
Drain to Source breakdown voltage	V_{DSS}	-50	V
Gate to Source voltage	V_{GSO}	-8	V
Drain current	I_D	-100	mA
Max drain current	I_{DP}	-200	mA
Allowable power dissipation	P_D	150	mW
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



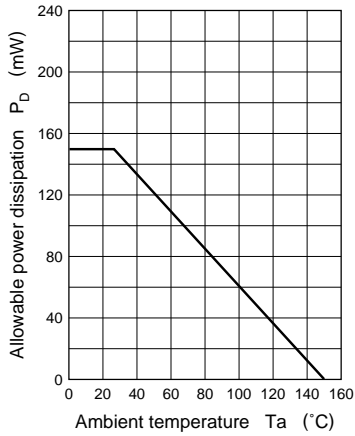
Marking Symbol: 4D

■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

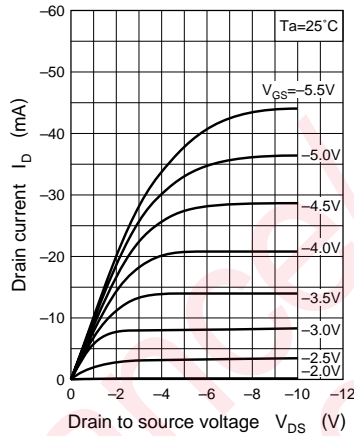
Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I_{DSS}	$V_{DS} = -30\text{V}, V_{GS} = 0$			-10	μA
Gate to Source leakage current	I_{GSS}	$V_{GS} = -8\text{V}, V_{DS} = 0$			-1	μA
Drain to Source breakdown voltage	V_{DSS}	$I_D = -100\mu\text{A}, V_{GS} = 0$	-50			V
Gate threshold voltage	V_{th}	$V_{DS} = -5\text{V}, I_D = -100\mu\text{A}$	-1.5		-3.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = -10\text{V}, I_D = -10\text{mA}, f = 1\text{kHz}$	8	13.5		mS
Drain to Source ON-resistance	$R_{DS(on)}$	$V_{GS} = -5\text{V}, I_D = -10\text{mA}$			150	Ω
Input capacitance (Common Source)	C_{iss}	$V_{DS} = -5\text{V}, V_{GS} = 0, f = 1\text{MHz}$			13	pF
Output capacitance (Common Source)	C_{oss}				7	pF
Reverse transfer capacitance (Common Source)	C_{rss}				3	pF
Turn-on time	t_{on}^*	$V_{DD} = -5\text{V}, V_{GS} = 0 \text{ to } -5\text{V}, R_L = 400\Omega$			40	ns
Turn-off time	t_{off}^*	$V_{DD} = -5\text{V}, V_{GS} = -5 \text{ to } 0\text{V}, R_L = 400\Omega$			60	ns

* t_{on}, t_{off} measurement circuit

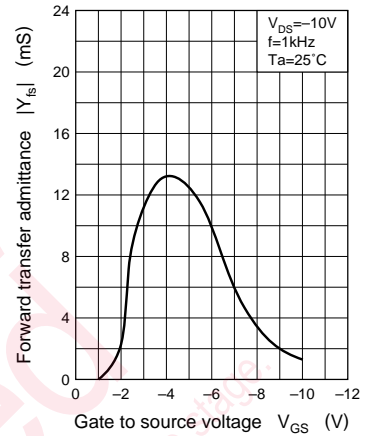
$P_D - T_a$



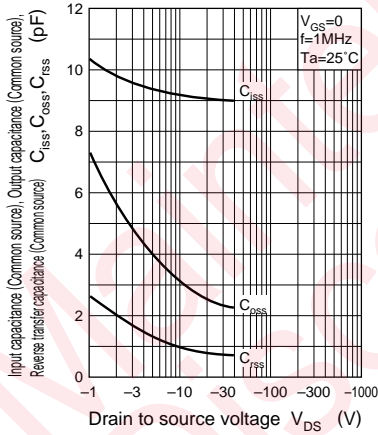
$I_D - V_{DS}$



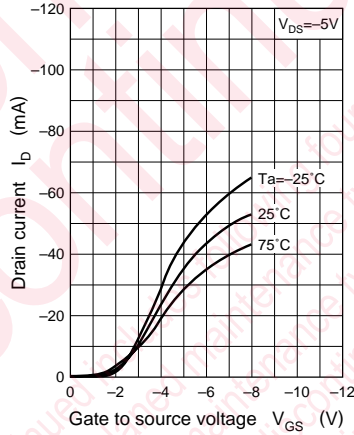
$|Y_{fs}| - V_{GS}$



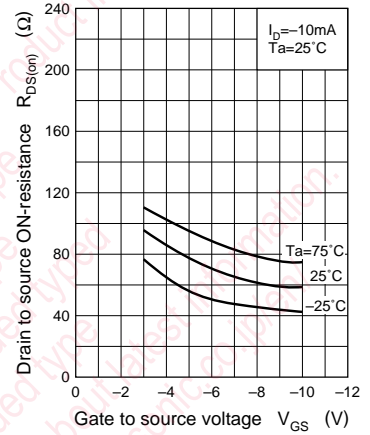
$C_{iss}, C_{oss}, C_{rss} - V_{DS}$



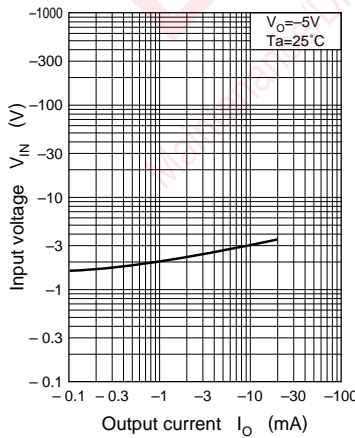
$I_D - V_{GS}$



$R_{DS(on)} - V_{GS}$



$V_{IN} - I_O$



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