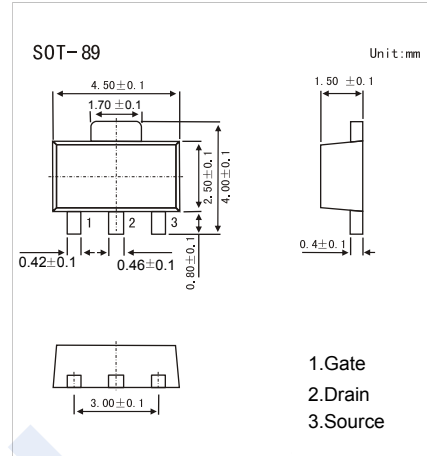
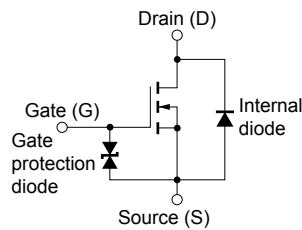


N-Channel MOSFET

2SK1959

■ Features

- V_{DS} (V) = 16V
- I_D = 2A
- $R_{DS(ON)} < 3.2 \Omega$ ($V_{GS} = 1.5V$)
- $R_{DS(ON)} < 0.5 \Omega$ ($V_{GS} = 4V$)



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	16	V
Gate-Source Voltage	V_{GS}	± 7	
Continuous Drain Current	I_D	2	A
Pulsed Drain Current (Note.1)	I_{DM}	4	
Power Dissipation	P_D	2	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10\text{ms}$, Duty Cycle $\leq 50\%$

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

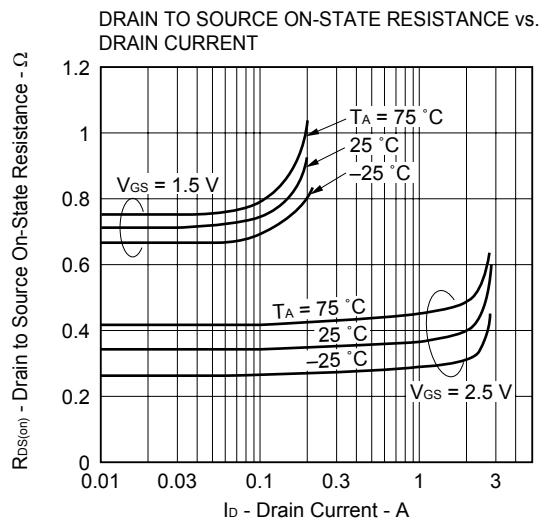
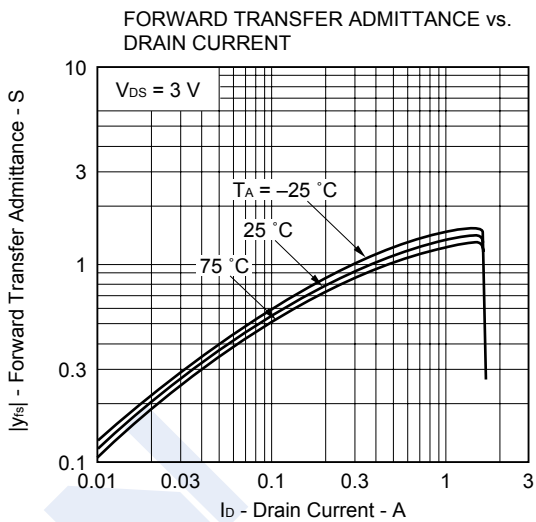
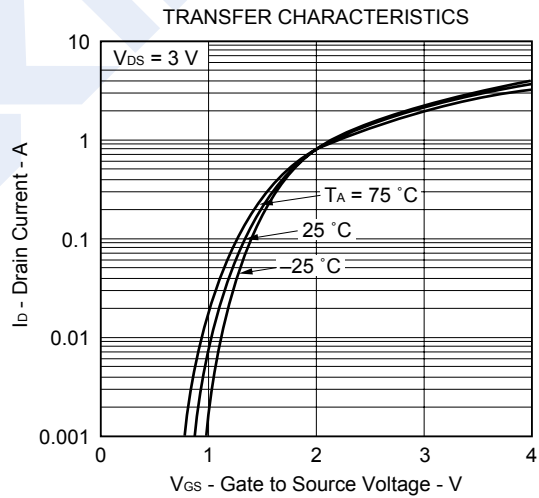
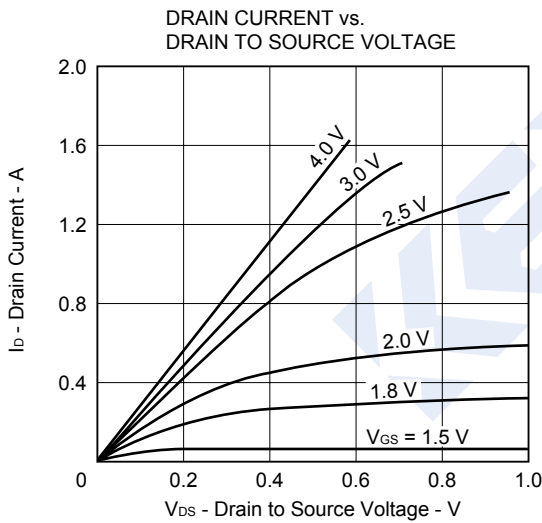
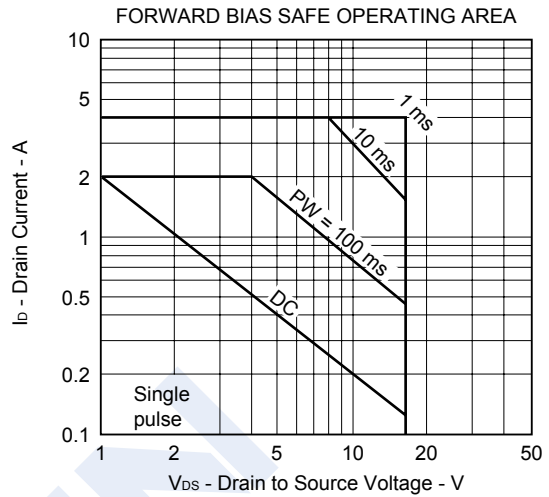
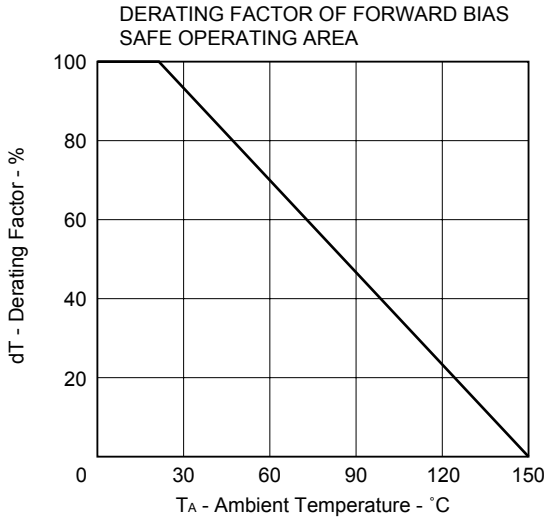
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D=250 \mu\text{A}$, $V_{GS}=0\text{V}$	16			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=16\text{V}$, $V_{GS}=0\text{V}$			1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0\text{V}$, $V_{GS}=\pm 7\text{V}$			± 3	μA
Gate Cut-off Voltage	$V_{GS(off)}$	$V_{DS}=3\text{V}$, $I_D=100\mu\text{A}$	0.5		1.1	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=1.5\text{V}$, $I_D=50\text{mA}$			3.2	Ω
		$V_{GS}=2.5\text{V}$, $I_D=500\text{mA}$			0.6	
		$V_{GS}=4\text{V}$, $I_D=1\text{A}$			0.5	
Forward Transconductance	g_{FS}	$V_{DS}=3\text{V}$, $I_D=1\text{A}$	1			S
Input Capacitance	C_{iss}	$V_{GS}=0\text{V}$, $V_{DS}=3\text{V}$, $f=1\text{MHz}$		160		pF
Output Capacitance	C_{oss}			150		
Reverse Transfer Capacitance	C_{rss}			50		
Turn-On Delay Time	$t_{d(on)}$			45		
Turn-On Rise Time	t_r	$V_{GS(on)}=3\text{V}$, $V_{DS}=3\text{V}$, $I_D=0.5\text{A}$, $R_L=6 \Omega$, $R_G=10 \Omega$		190		
Turn-Off Delay Time	$t_{d(off)}$			180		
Turn-Off Fall Time	t_f			210		

■ Marking

Marking	NQ
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N-Channel MOSFET 2SK1959

Typical Characteristics



N-Channel MOSFET 2SK1959

■ Typical Characteristics

