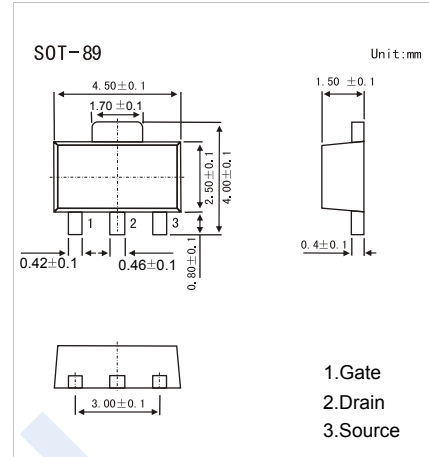
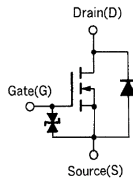


N-Channel MOSFET

2SK1593

■ Features

- $V_{DS} (V) = 100V$
- $I_D = 0.5A$
- $R_{DS(ON)} < 6\ \Omega$ ($V_{GS} = 4V$)
- $R_{DS(ON)} < 5\ \Omega$ ($V_{GS} = 10V$)



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	0.5	A
Pulsed Drain Current (Note.1)	I_{DM}	1	
Power Dissipation	P_D	2	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

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

■ Electrical Characteristics $T_a = 25^\circ C$

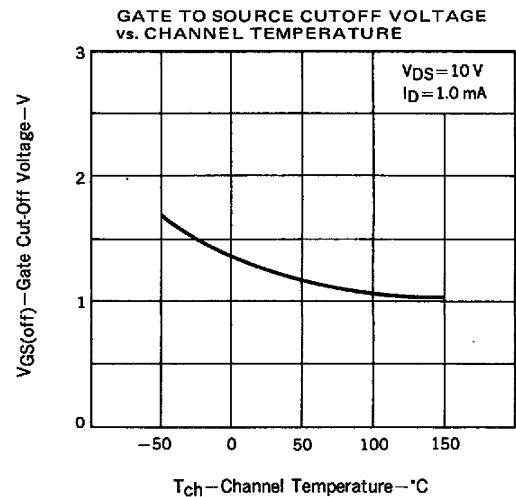
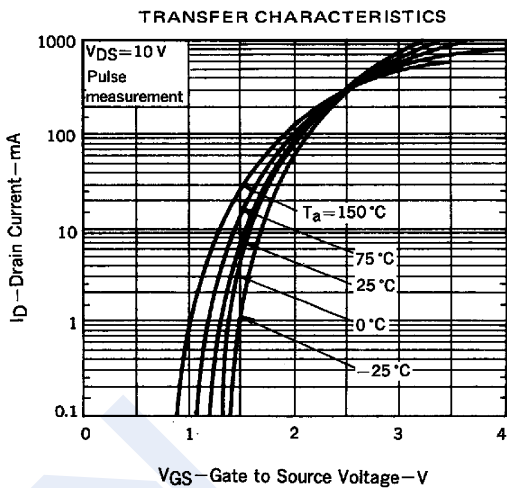
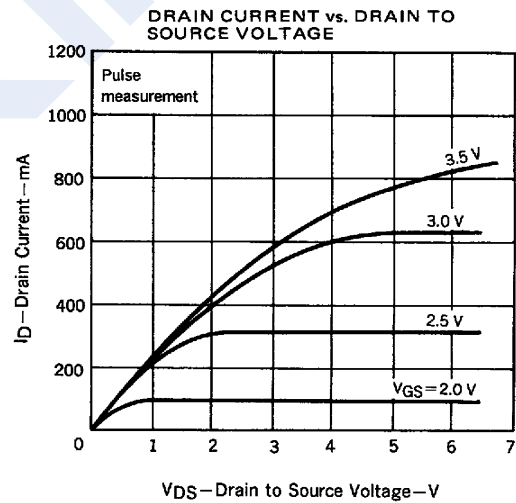
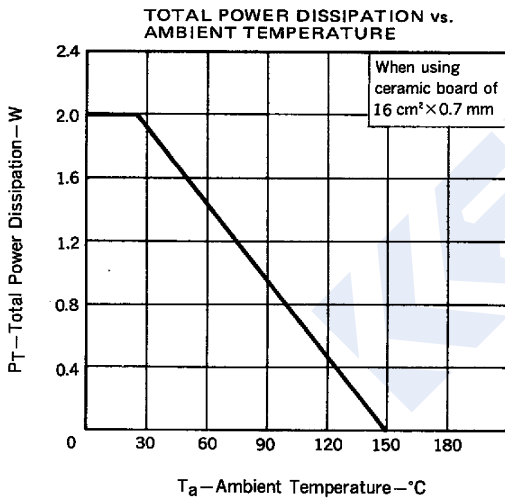
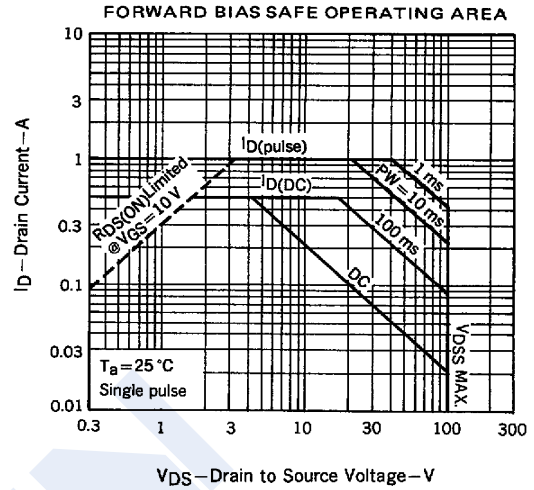
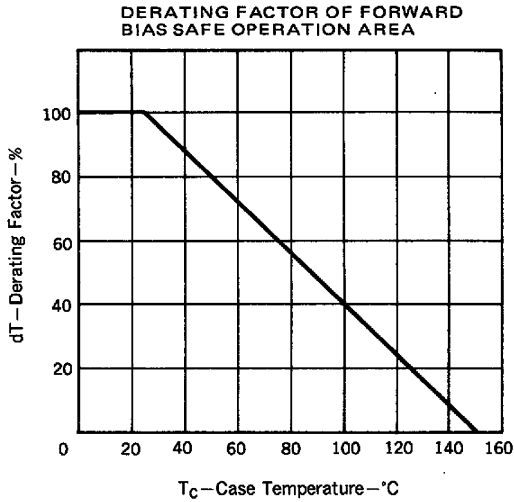
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D = 250\ \mu A$, $V_{GS} = 0V$	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 100V$, $V_{GS} = 0V$			10	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 20V$			± 10	μA
Gate Cut-off Voltage	$V_{GS(off)}$	$V_{DS} = 10V$, $I_D = 1mA$	0.8		2	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = 4V$, $I_D = 0.3 A$			6	Ω
		$V_{GS} = 10V$, $I_D = 0.3 A$			5	
Forward Transconductance	g_{FS}	$V_{DS} = 10V$, $I_D = 0.5 A$	0.4	0.5		S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = 10V$, $f = 1MHz$		55		pF
Output Capacitance	C_{oss}			25		
Reverse Transfer Capacitance	C_{rss}			4.5		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS(on)} = 4V$, $V_{DS} = 10V$, $I_D = 0.3A$, $R_L = 33\ \Omega$, $R_G = 10\ \Omega$		60		ns
Turn-On Rise Time	t_r			140		
Turn-Off Delay Time	$t_{d(off)}$			140		
Turn-Off Fall Time	t_f			90		

■ Marking

Marking	NP

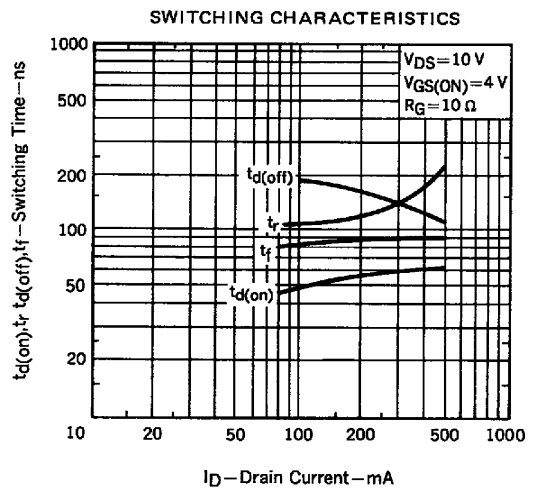
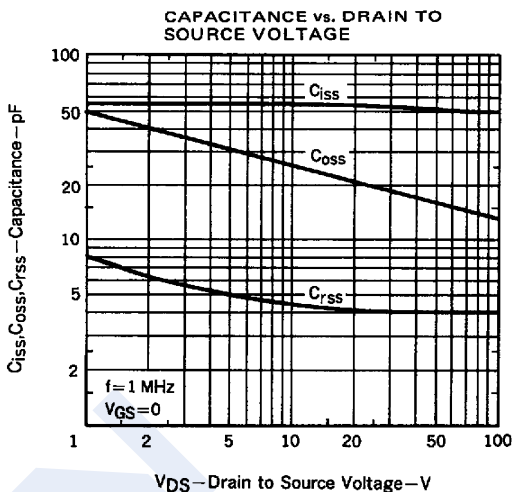
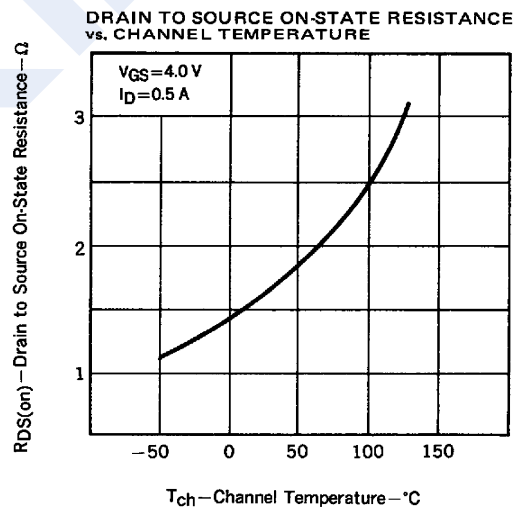
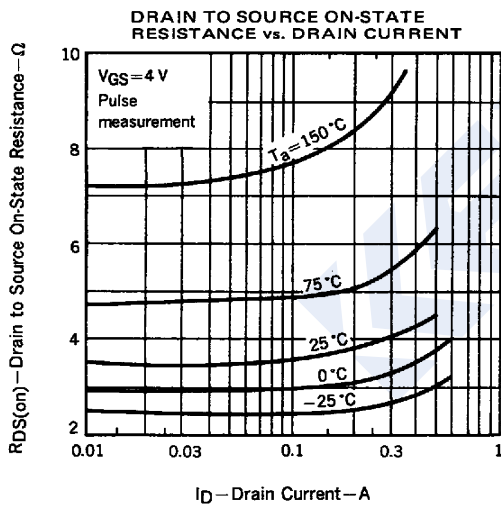
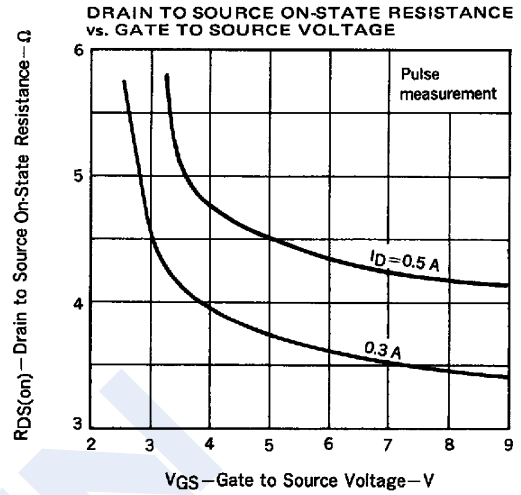
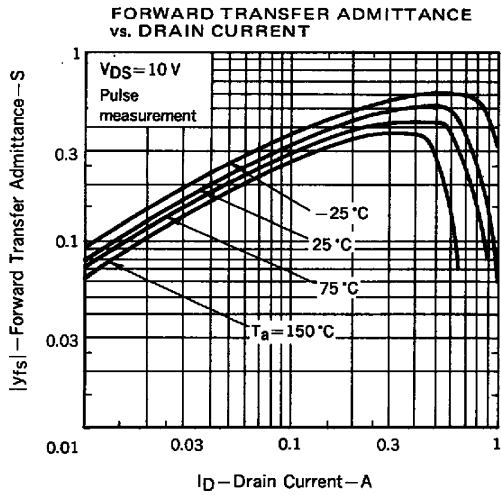
N-Channel MOSFET 2SK1593

■ Typical Characteristics



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■ Typical Characteristics



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■ Typical Characteristics

