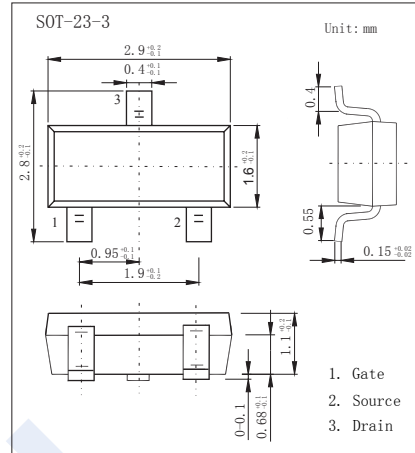
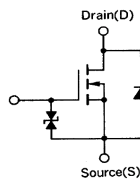


## N-Channel MOSFET

### 2SK1589

#### ■ Features

- $V_{DS} (V) = 100V$
- $I_D = 0.1 A$
- $R_{DS(ON)} < 30 \Omega$  ( $V_{GS} = 4V$ )
- $R_{DS(ON)} < 25 \Omega$  ( $V_{GS} = 10V$ )



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	100	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current	$I_D$	100	mA
Pulsed Drain Current (Note.1)	$I_{DM}$	200	
Power Dissipation	$P_D$	200	mW
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 $T_a = 25^\circ C$

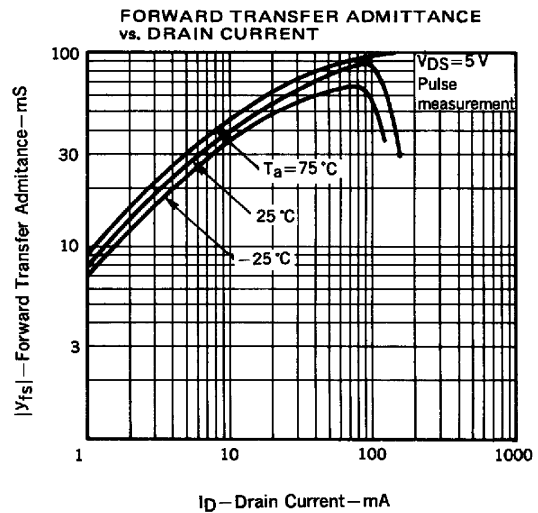
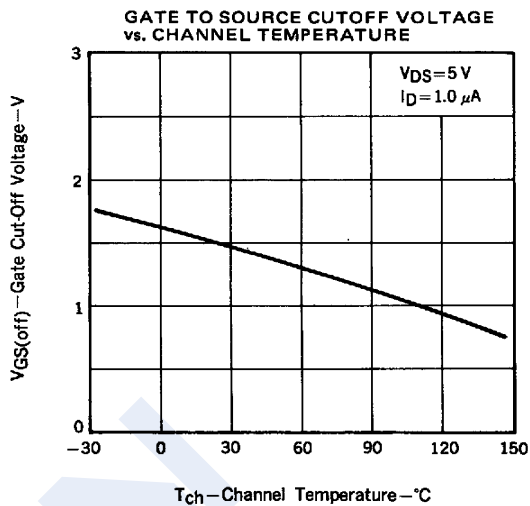
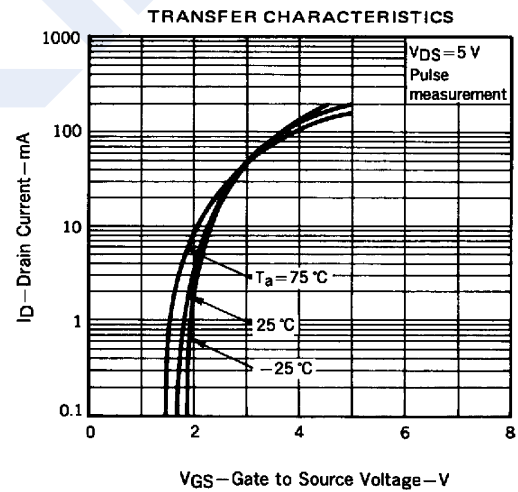
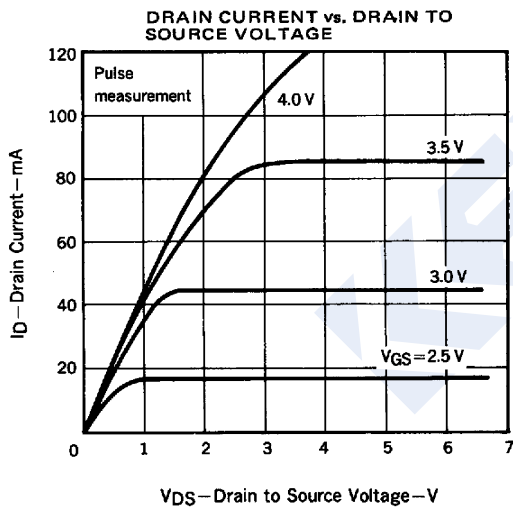
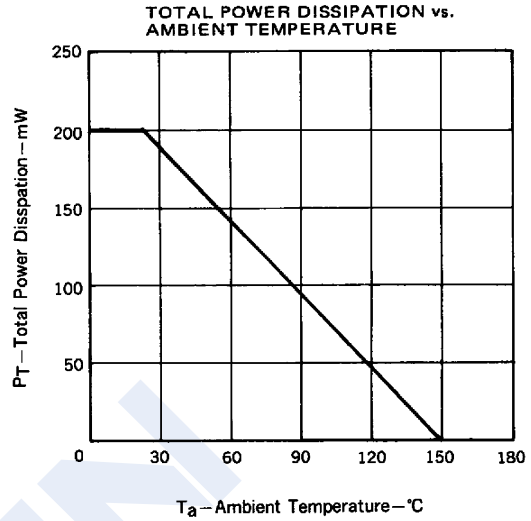
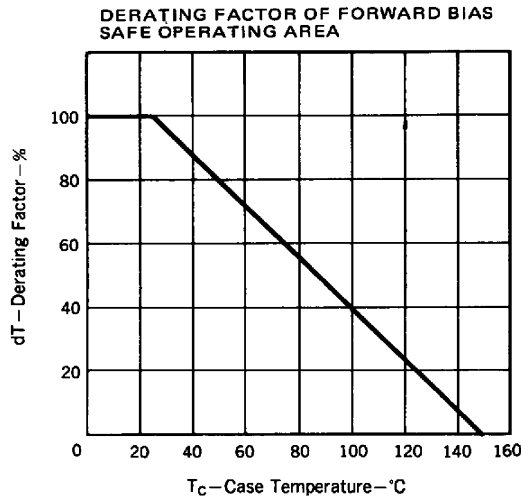
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DSS}$	$I_D=250 \mu A, V_{GS}=0V$	100			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=100V, V_{GS}=0V$			1	$\mu A$
Gate-Body Leakage Current	$I_{GSS}$	$V_{DS}=0V, V_{GS}=\pm 20V$			$\pm 1$	$\mu A$
Gate Cut-off Voltage	$V_{GS(off)}$	$V_{DS}=5V, I_D=1\mu A$	0.8		1.8	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4V, I_D=10m A$			30	$\Omega$
		$V_{GS}=10V, I_D=10m A$			25	
Forward Transconductance	$g_{FS}$	$V_{DS}=5V, I_D=10m A$	20	38		mS
Input Capacitance	$C_{iss}$	$V_{GS}=0V, V_{DS}=5V, f=1MHz$		16		pF
Output Capacitance	$C_{oss}$			12		
Reverse Transfer Capacitance	$C_{rss}$			3		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS(on)}=5V, V_{DS}=5V, I_D=10mA, R_L=500 \Omega, R_G=10 \Omega$		17		ns
Turn-On Rise Time	$t_r$			10		
Turn-Off DelayTime	$t_{d(off)}$			68		
Turn-Off Fall Time	$t_f$			38		

#### ■ Marking

Marking	G17
---------	-----

## N-Channel MOSFET 2SK1589

### Typical Characteristics



## N-Channel MOSFET 2SK1589

■ Typical Characteristics

