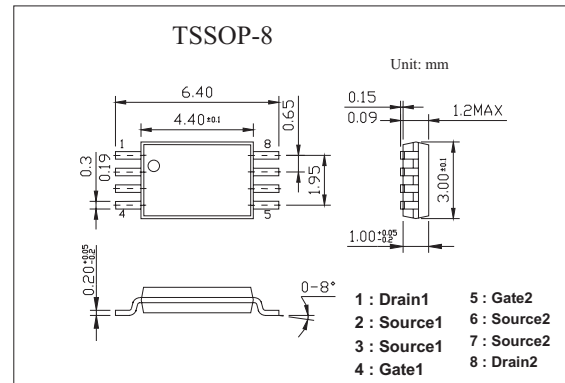
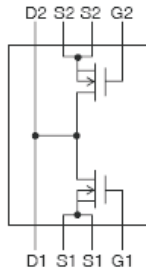


## N-Channel Silicon MOSFET

## KTD2017

## ■ Features

- Low ON resistance.
- 2.5V drive.
- Mounting height 1.1mm
- Composite type, facilitating high-density mounting.

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

Parameter	Symbol	Rating	Unit
Drain-to-Source Voltage	$V_{DSS}$	20	V
Gate-to-Source Voltage	$V_{GSS}$	$\pm 10$	V
Drain Current(DC)	$I_D$	5	A
Drain Current (pulse) $(PW \leq 10\mu s)$	$I_{DP}$	20	A
Allowable Power Dissipation	$P_D$	0.8	W
Total Dissipation	$P_T$	1.3	W
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain-to Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0$	20			V
Drain Cut-off Current	$I_{DSS}$	$V_{DS} = 20 V, V_{GS} = 0 V$			1	$\mu A$
Gate Leakage Current	$I_{GSS}$	$V_{GS} = \pm 8 V, V_{DS} = 0 V$			$\pm 10$	$\mu A$
Gate Cut-off Voltage	$V_{GS(off)}$	$V_{DS} = 10 V, I_D = 1 mA$	0.4		1.3	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10 V, I_D = 5 A$	11.2	16		S
Static Drain to Source On-state Resistance	$R_{DS(on)1}$	$V_{GS} = 4 V, I_D = 4 A$		17	23	$m\Omega$
	$R_{DS(on)2}$	$V_{GS} = 2.5 V, I_D = 2 A$		20	29	$m\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = 10 V, f = 1 MHz$		1500		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 10 V, f = 1 MHz$		350		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 10 V, f = 1 MHz$		230		pF
Turn-on Delay Time	$t_{d(on)}$	See Specified Test Circuit		19		ns
Rise Time	$t_r$			190		ns
Turn-off Delay Time	$t_{d(off)}$			90		ns
Fall Time	$t_f$			160		ns
Total Gate Charge	$Q_g$				42	
Gate-Source Charge	$Q_{gs}$	$V_{DS} = 10 V, V_{GS} = 10 V, I_D = 5 A$		4		nC
Gate-Drain Charge	$Q_{gd}$			8		nC
Diode Forward Voltage	$V_{SD}$	$I_F = 5 A, V_{GS} = 0 V$		0.8	1.2	V

## ■ Switching Time Test Circuit

