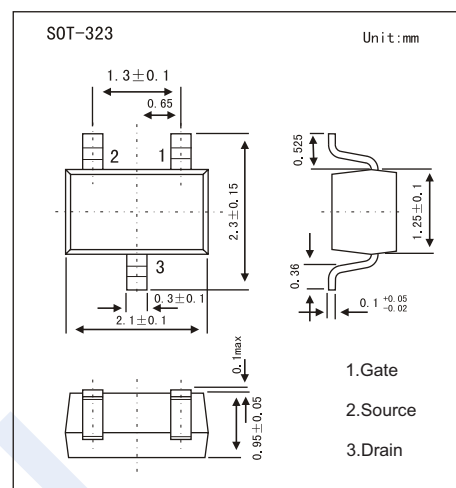
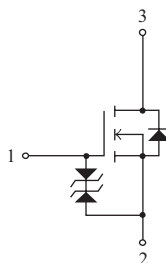


N-Channel MOSFET

MCH3476

■ Features

- $V_{DS}(V) = 20V$
- $I_D = 2.0 A$
- $R_{DS(ON)} < 125m\Omega$ ($V_{GS} = 4.5V$)
- $R_{DS(ON)} < 190m\Omega$ ($V_{GS} = 2.5V$)
- $R_{DS(ON)} < 310m\Omega$ ($V_{GS} = 1.8V$)
- 1.8V Drive
- ESD Diode-Protected Gate

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current	I_D	2	A
Pulsed Drain Current $PW \leq 10\mu s$, duty cycle $\leq 1\%$	I_{DP}	8	
Power Dissipation ^{*1}	P_D	0.8	W
Thermal Resistance.Junction- to-Ambient ^{*1}	R_{thJA}	156.2	$^\circ C/W$
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

*1: When mounted on ceramic substrate ($900mm^2 \times 0.8mm$)

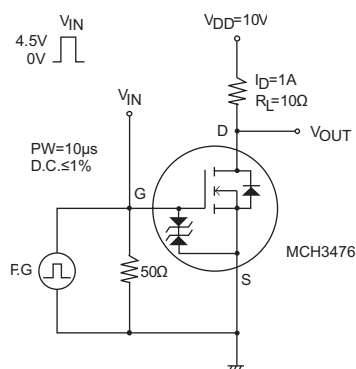
N-Channel MOSFET

MCH3476

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D=1\text{mA}$, $V_{GS}=0\text{V}$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20\text{V}$, $V_{GS}=0\text{V}$			1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0\text{V}$, $V_{GS}=\pm 8\text{V}$			± 10	
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=10\text{V}$, $I_D=1\text{mA}$	0.4		1.3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4.5\text{V}$, $I_D=1\text{A}$			125	$\text{m}\Omega$
		$V_{GS}=2.5\text{V}$, $I_D=0.5\text{A}$			190	
		$V_{GS}=1.8\text{V}$, $I_D=0.3\text{A}$			310	
Forward Transconductance	g_{FS}	$V_{DS}=10\text{V}$, $I_D=1\text{A}$		1.9		S
Input Capacitance	C_{iss}	$V_{DS}=10\text{V}$, $f=1\text{MHz}$		128		pF
Output Capacitance	C_{oss}			28		
Reverse Transfer Capacitance	C_{rss}			21		
Total Gate Charge	Q_g	$V_{GS}=4.5\text{V}$, $V_{DS}=10\text{V}$, $I_D=2\text{A}$		1.8		nC
Gate Source Charge	Q_{gs}			0.3		
Gate Drain Charge	Q_{gd}			0.55		
Turn-On DelayTime	$t_{d(on)}$	See specified Test Circuit		5.1		ns
Turn-On Rise Time	t_r			11		
Turn-Off DelayTime	$t_{d(off)}$			14.5		
Turn-Off Fall Time	t_f			12		
Diode Forward Voltage	V_{SD}	$I_S=2\text{A}$, $V_{GS}=0\text{V}$			1.2	V

■ Switching Time Test Circuit



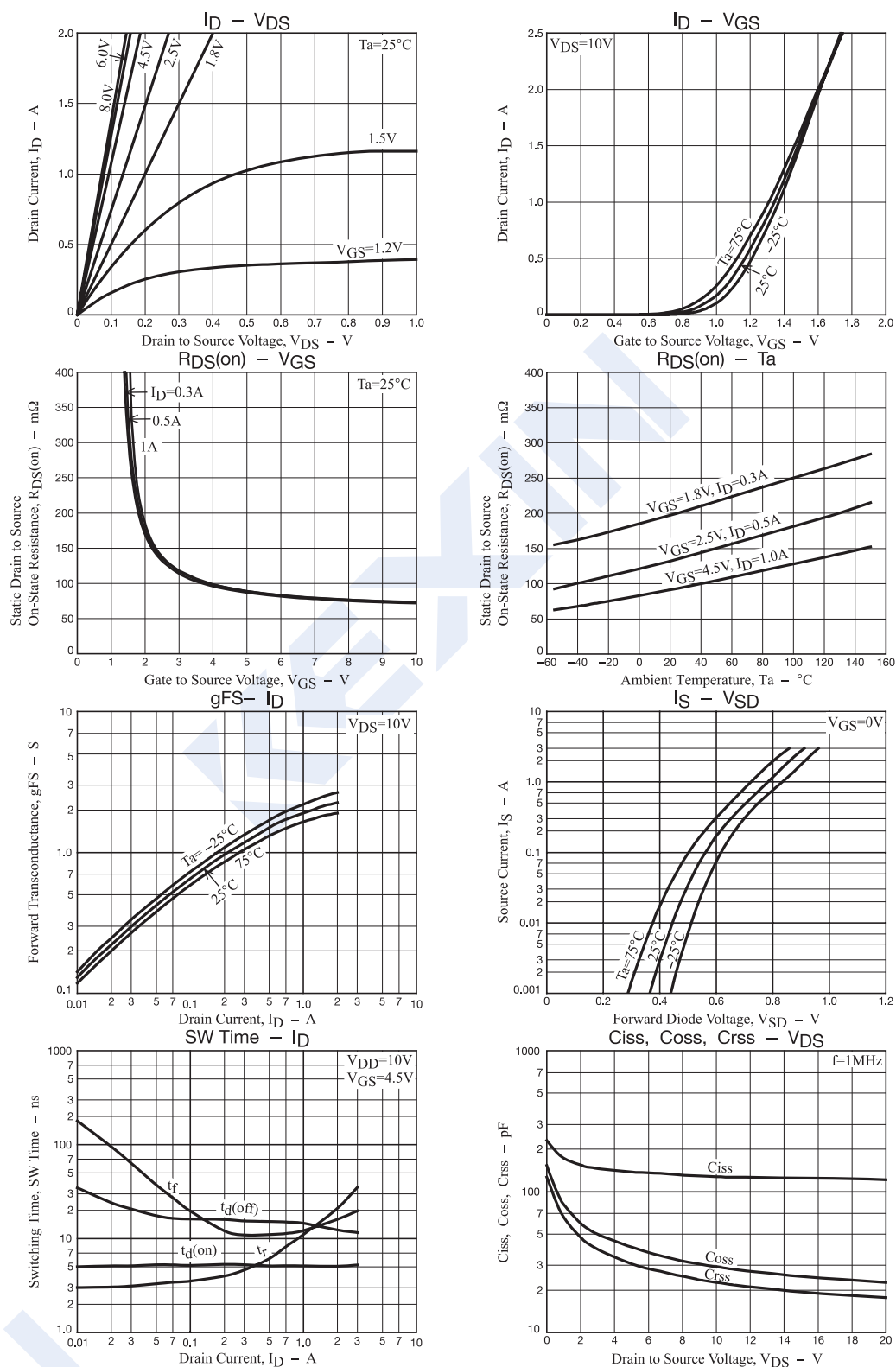
■ Marking

Marking	FH
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N-Channel MOSFET

MCH3476

■ Typical Characteristics



N-Channel MOSFET

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