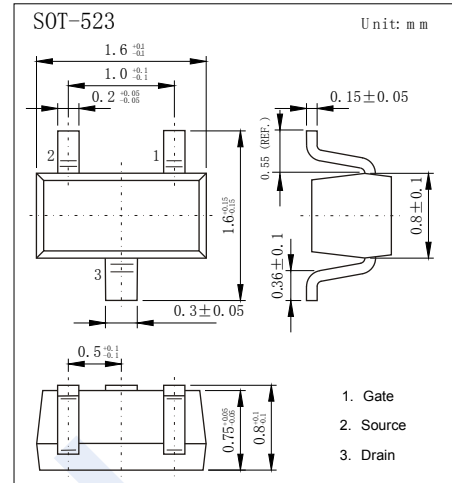
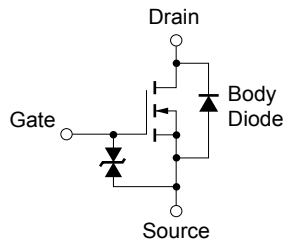


N-Channel MOSFET

2SK3503

Features

- $V_{DS} (V) = 16V$
- $I_D = 100 \text{ mA}$ ($V_{GS} = 1.5V$)
- $R_{DS(ON)} < 50 \Omega$ ($V_{GS} = 1.5V$)
- $R_{DS(ON)} < 15 \Omega$ ($V_{GS} = 2.5V$)
- $R_{DS(ON)} < 12 \Omega$ ($V_{GS} = 4V$)



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	100	mA
Pulsed Drain Current (Note.1)			
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

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

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

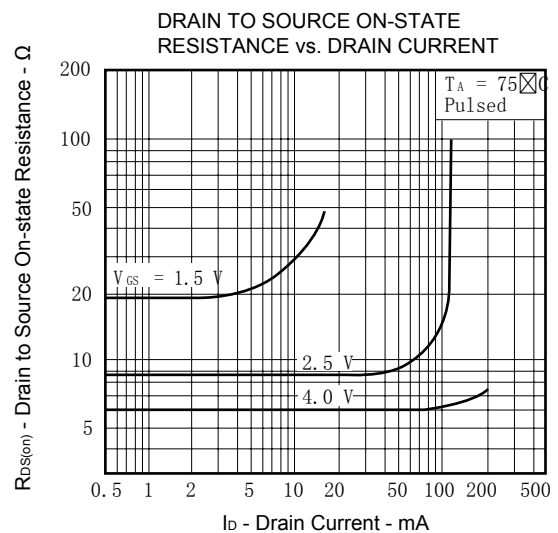
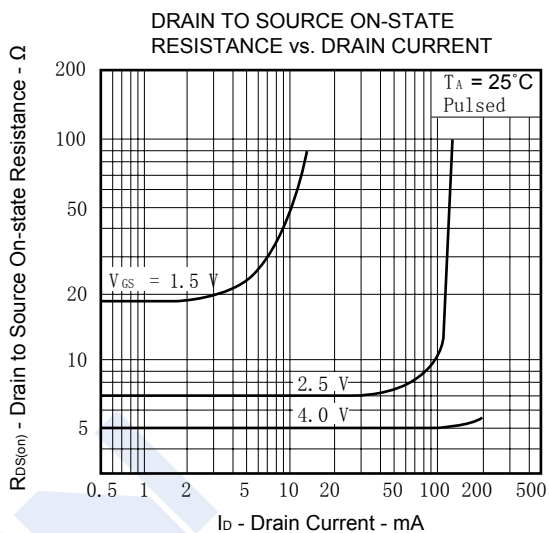
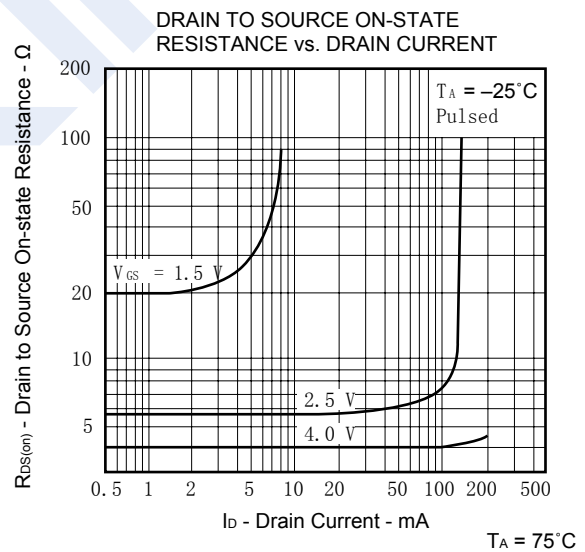
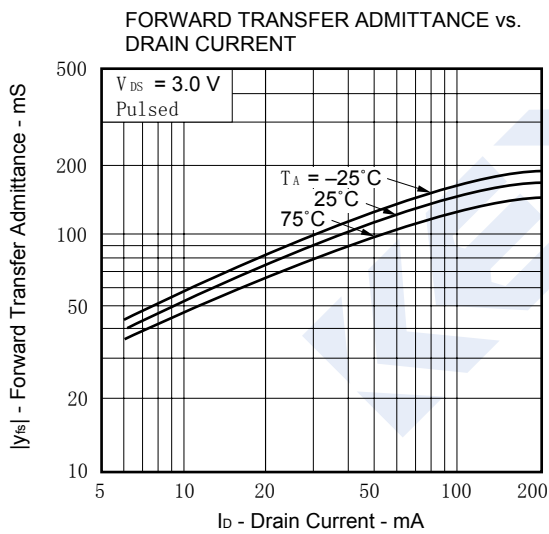
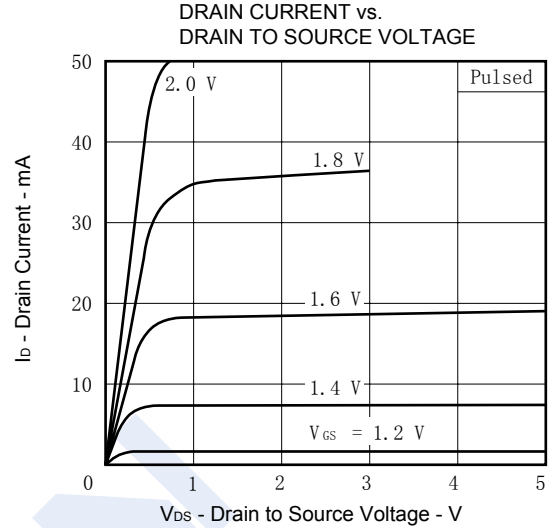
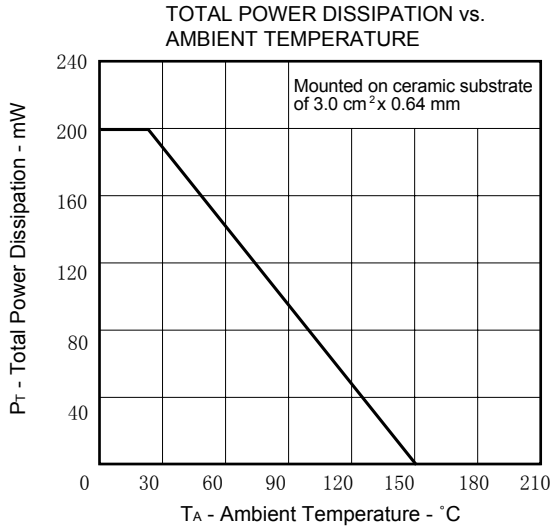
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D = 250 \mu\text{A}$, $V_{GS} = 0V$	16			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 16V$, $V_{GS} = 0V$			1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 7V$			± 3	
Gate Cut-off Voltage	$V_{GS(off)}$	$V_{DS} = 3V$, $I_D = 10 \mu\text{A}$	0.5	0.8	1.1	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = 1.5V$, $I_D = 1 \text{ mA}$		20	50	Ω
		$V_{GS} = 2.5V$, $I_D = 10 \text{ mA}$		7	15	
		$V_{GS} = 4V$, $I_D = 10 \text{ mA}$		5	12	
Forward Transconductance	g_{FS}	$V_{DS} = 3V$, $I_D = 10 \text{ mA}$	20			mS
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = 3V$, $f = 1\text{MHz}$		10		pF
Output Capacitance	C_{oss}			13		
Reverse Transfer Capacitance	C_{rss}			3		
Turn-On Delay Time	$t_{d(on)}$		$V_{GS} = 3V$, $V_{DS} = 3V$, $I_D = 10 \text{ mA}$, $R_G = 10 \Omega$		15	
Turn-On Rise Time	t_r			70		
Turn-Off Delay Time	$t_{d(off)}$			100		
Turn-Off Fall Time	t_f			110		

Marking

Marking	E1
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N-Channel MOSFET 2SK3503

Typical Characteristics



N-Channel MOSFET 2SK3503

■ Typical Characteristics

