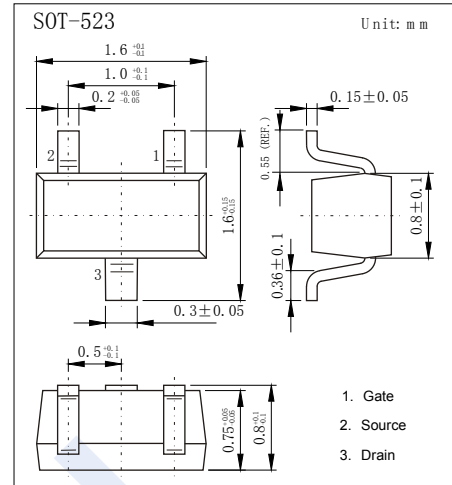
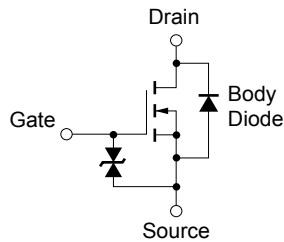


## N-Channel MOSFET

### 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	$V_{GS}$	$\pm 7$	
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 $T_a = 25^\circ\text{C}$

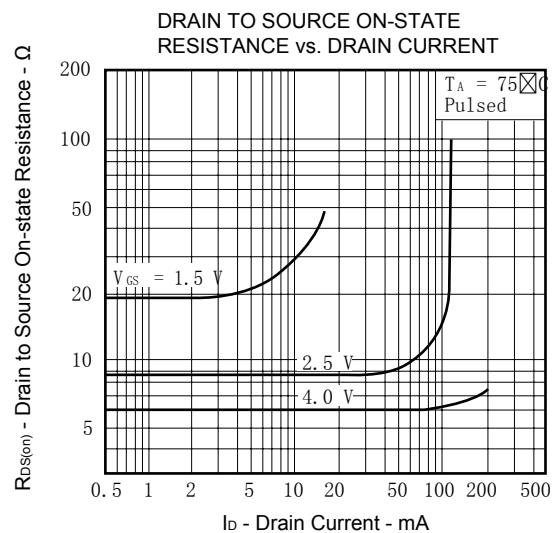
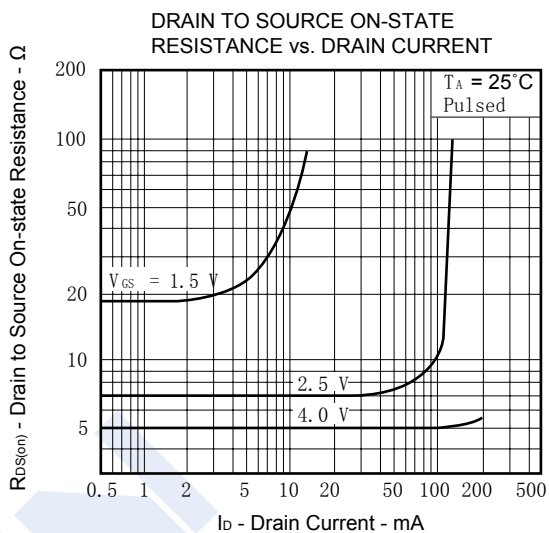
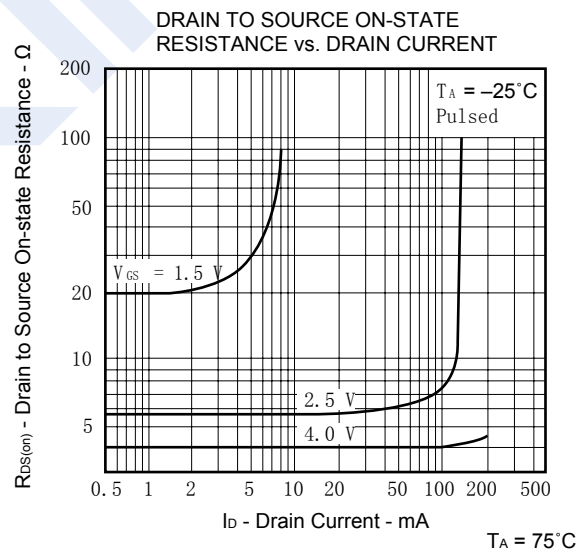
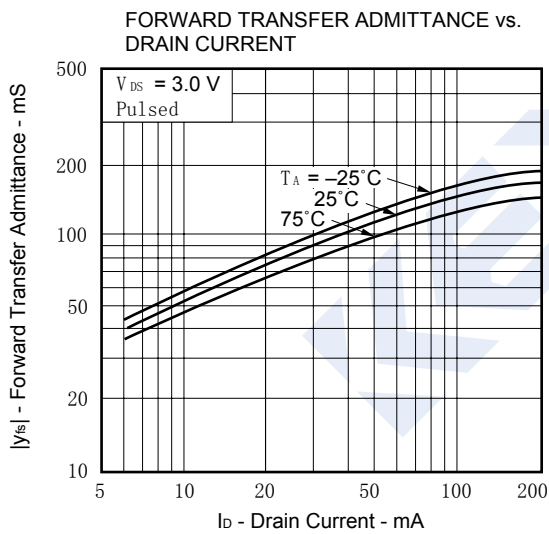
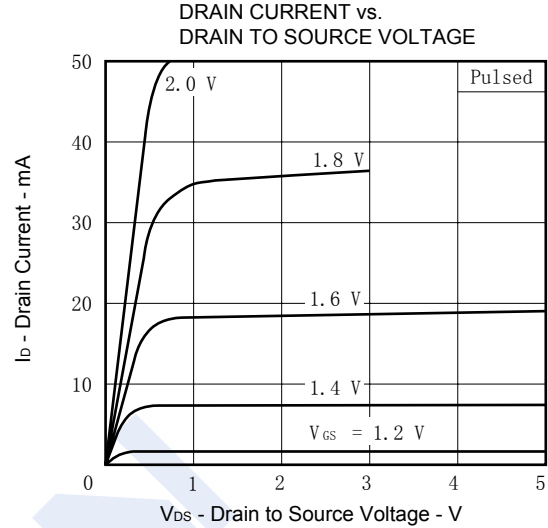
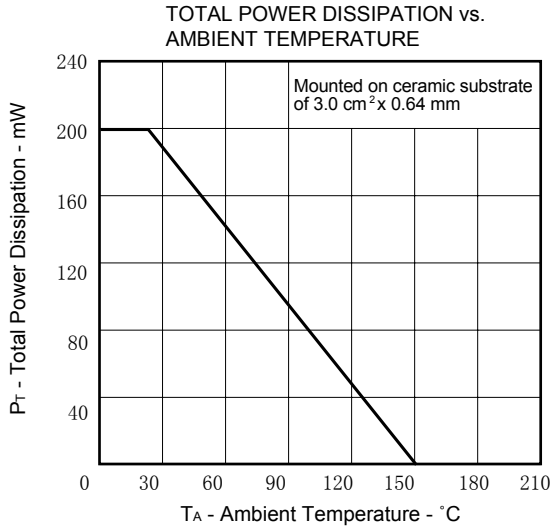
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DSS}$	$I_D = 250 \mu\text{A}$ , $V_{GS} = 0V$	16			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 16V$ , $V_{GS} = 0V$			1	$\mu\text{A}$
Gate-Body Leakage Current	$I_{GSS}$	$V_{DS} = 0V$ , $V_{GS} = \pm 7V$			$\pm 3$	
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	$\Omega$
		$V_{GS} = 2.5V$ , $I_D = 10 \text{ mA}$		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		$\text{pF}$
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

