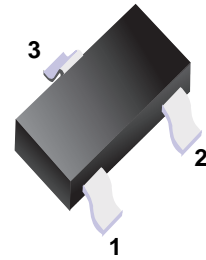


■ N-Channel MOSFET

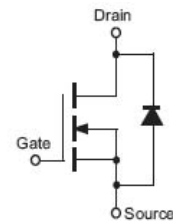


1.Gate
2.Source
3.Drain

■ Features

- $V_{DS} (V) = 60V$
- $I_D = 115mA$
- $R_{DS(ON)} < 5\Omega (V_{GS} = 10V)$
- $R_{DS(ON)} < 7\Omega (V_{GS} = 5V)$

■ Simplified outline(SOT-523)



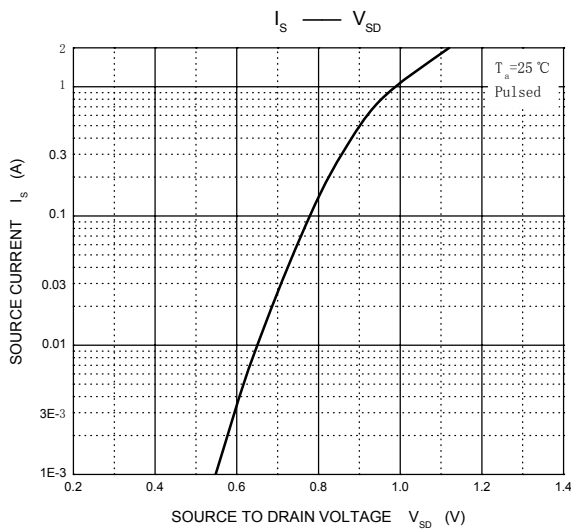
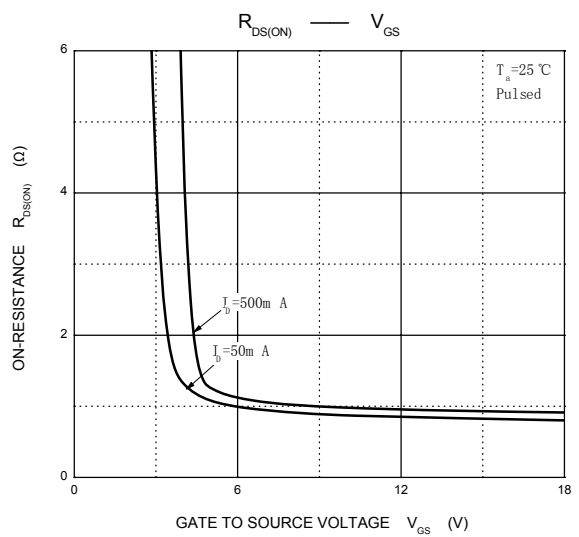
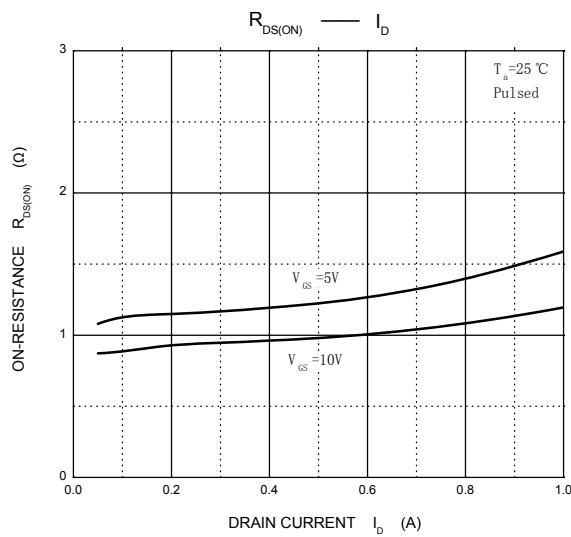
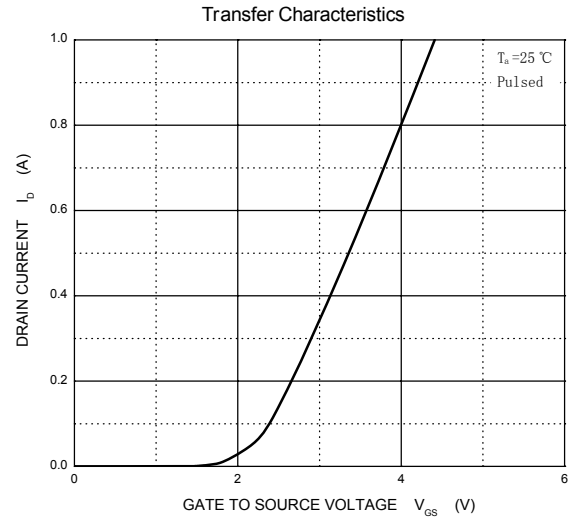
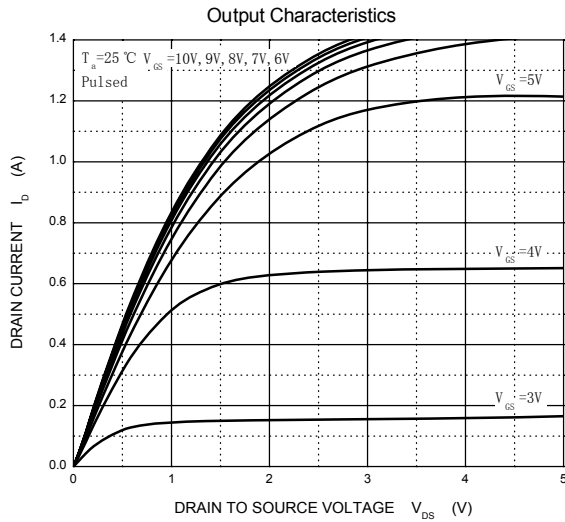
Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	115	mA
Power Dissipation	P_D	150	mW
Thermal Resistance.Junction- to-Ambient	R_{thJA}	833	$^\circ C/W$
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

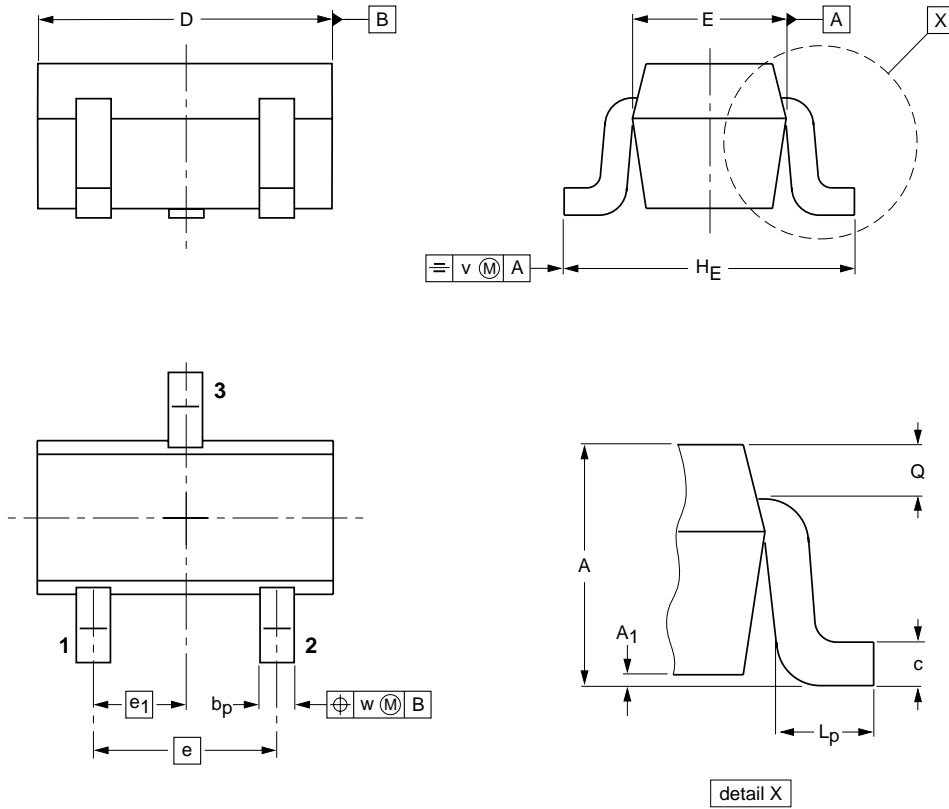
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D=250\mu A, V_{GS}=0V$	60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V, V_{GS}=0V$			80	nA
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 20V$			± 80	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1		2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=500mA$			5	Ω
		$V_{GS}=5V, I_D=50mA$			7	
On State Drain Current	$I_{D(on)}$	$V_{GS}=10V, V_{DS}=7V$	500			mA
Forward Transconductance	g_{FS}	$V_{DS}=10V, I_D=0.2A$	80			mS
Input Capacitance	C_{iss}	$V_{GS}=0V, V_{DS}=25V, f=1MHz$			50	pF
Output Capacitance	C_{oss}				25	
Reverse Transfer Capacitance	C_{rss}				5	
Turn-On DelayTime	$t_{d(on)}$	$V_{DD} = 25V, I_D = 0.5A, V_{GEN}= 10V$ $R_L = 50\Omega, R_{GEN} = 25\Omega$			20	ns
Turn-Off DelayTime	$t_{d(off)}$				40	
Drain-source on-voltage	$V_{DS(on)}$	$V_{GS}=10V, I_D=500mA$			3.75	V
		$V_{GS}=5V, I_D=50mA$			0.375	
Diode Forward Voltage	V_{SD}	$I_S=115mA, V_{GS}=0V$	0.55		1.2	

■ Typical Characteristics



Package Outline

SOT-523



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	0.95 0.60	0.1	0.30 0.15	0.25 0.10	1.8 1.4	0.9 0.7	1	0.5	1.75 1.45	0.45 0.15	0.23 0.13	0.2	0.2

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-523	Tape/Reel, 7" reel	3000	EIA-481-1