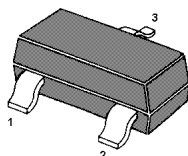


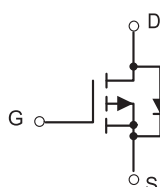
P-Channel 20-V(D-S) MOSFET

SOT-23



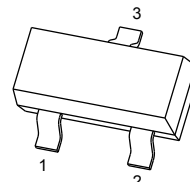
MARKING : ADRV**

Equivalent Circuit



SOT-23

- 1. GATE
- 2. SOURCE
- 3. DRAIN



$V_{(BR)DSS}$	$R_{DS(ON)}$ Typ	I_D Max
-20V	70m Ω @ 4.5V	-3.1A
	78m Ω @ 3.3V	

Maximum ratings ($T_a=25^\circ\text{C}$ unless otherwise noted)

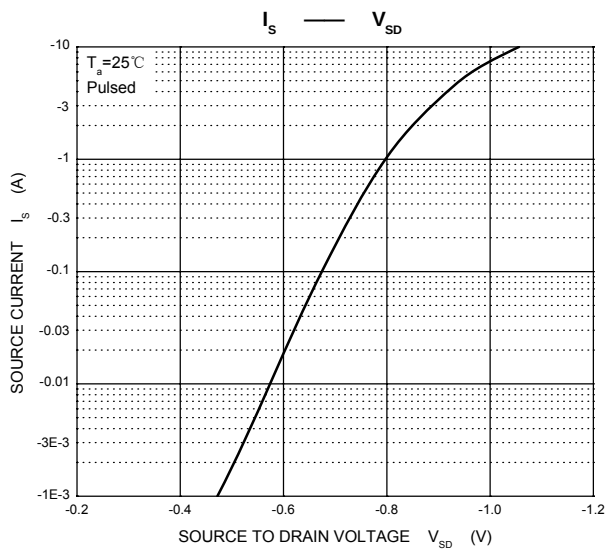
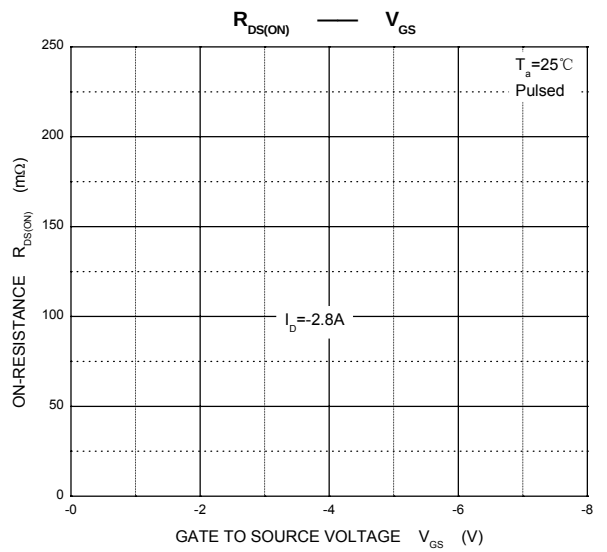
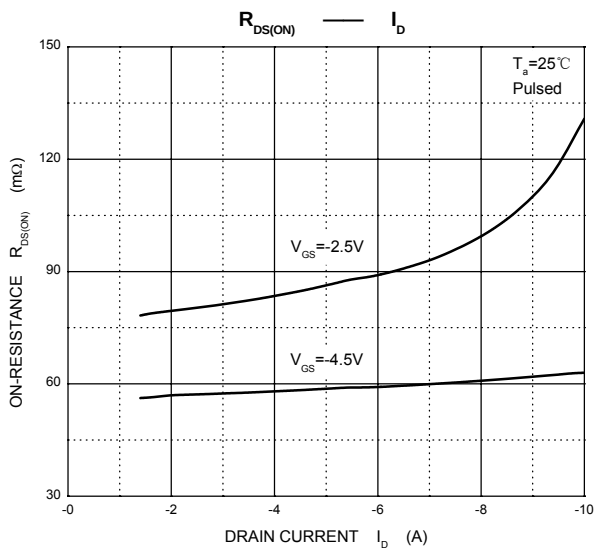
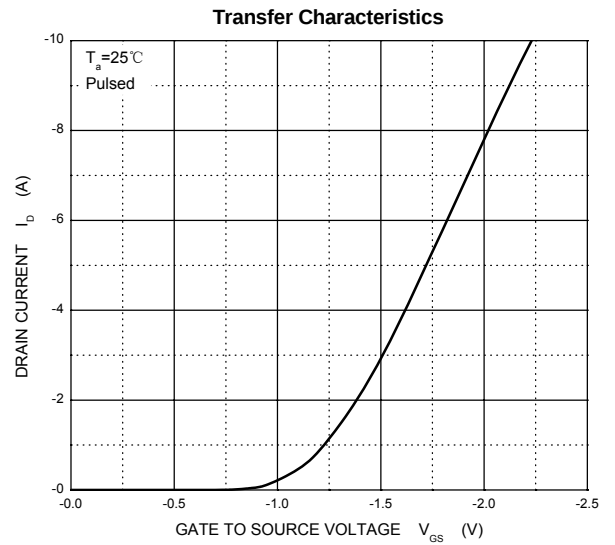
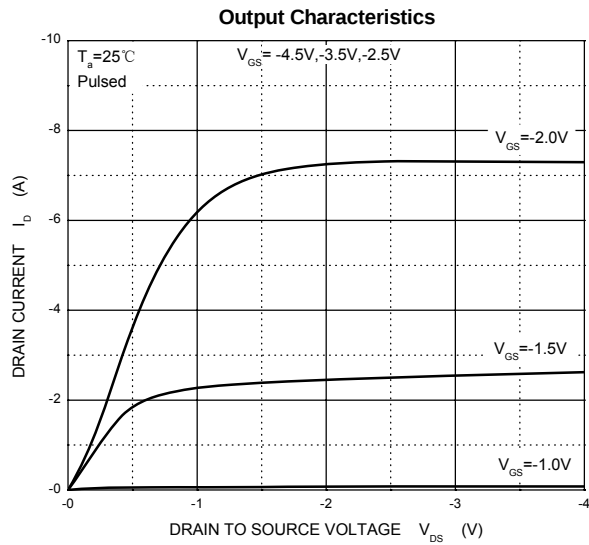
Symbol	Parameter	Rating	Unit	
Common Ratings (TA=25°C Unless Otherwise Noted)				
V _{GS}	Gate-Source Voltage	±10	V	
V _{(BR)DSS}	Drain-Source Breakdown Voltage	-20	V	
T _J	Maximum Junction Temperature	150	°C	
T _{STG}	Storage Temperature Range	-50 to 150	°C	
Mounted on Large Heat Sink				
I _{DM}	Pulse Drain Current Tested①	T _A =25°C	-12	A
I _D	Continuous Drain Current	T _A =25°C	-3.1	A
		T _A =70°C	-2.5	
P _D	Maximum Power Dissipation	T _A =25°C	1.2	W
		T _A =70°C	0.9	
R _{θJA}	Thermal Resistance Junction-Ambient	100	°C/W	

MOSFET ELECTRICAL CHARACTERISTICS

$T_a=25^{\circ}\text{C}$ unless otherwise specified

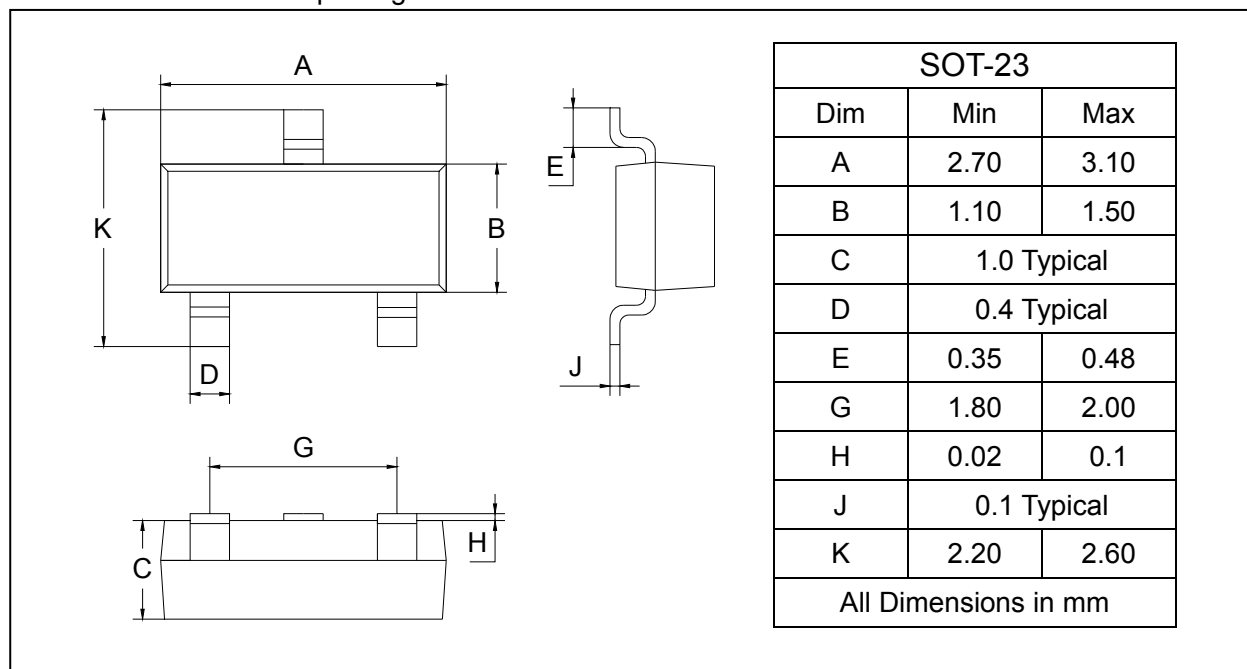
Symbol	Parameter	Condition	Min	Typ	Max	Unit
Static Electrical Characteristics @ T _J = 25°C (unless otherwise stated)						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V I _D =-250μA	-20	--	--	V
I _{DSS}	Zero Gate Voltage Drain Current(T _A =25°C)	V _{DS} =-20V, V _{GS} =0V	--	--	-1	μA
	Zero Gate Voltage Drain Current(T _A =125°C)	V _{DS} =-16V, V _{GS} =0V	--	--	-100	uA
I _{GSS}	Gate-Body Leakage Current	V _{GS} =±10V, V _{DS} =0V	--	--	±100	nA
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =-250μA	-0.4	-0.6	-1.0	V
R _{DS(ON)}	Drain-Source On-State Resistance②	V _{GS} =-4.5V, I _D =-3A	--	70	90	mΩ
R _{DS(ON)}	Drain-Source On-State Resistance②	V _{GS} =-3.3V, I _D =-2A	--	78	100	mΩ
Dynamic Electrical Characteristics @ T _J = 25°C (unless otherwise stated)						
C _{iss}	Input Capacitance	V _{DS} =-10V, V _{GS} =0V, f=1MHz	--	330	--	pF
C _{oss}	Output Capacitance		--	50	--	pF
C _{rss}	Reverse Transfer Capacitance		--	45	--	pF
Q _g	Total Gate Charge	V _{DS} =-10V I _D =-3A, V _{GS} =-4.5V	--	6.6	--	nC
Q _{gs}	Gate Source Charge		--	0.8	--	nC
Q _{gd}	Gate Drain Charge		--	1.4	--	nC
Switching Characteristics @ T _J = 25°C (unless otherwise stated)						
t _{d(on)}	Turn on Delay Time	V _{DD} =-10V, I _D =-3A, R _G =3.3Ω, V _{GS} =-4.5V	--	11	--	ns
t _r	Turn on Rise Time		--	12	--	ns
t _{d(off)}	Turn Off Delay Time		-	18	--	ns
t _f	Turn Off Fall Time		--	30	--	ns
Source Drain Diode Characteristics @ T _J = 25°C (unless otherwise stated)						
I _{SD}	Source drain current(Body Diode)	T _A =25°C	--	--	-1.5	A
V _{SD}	Forward on voltage②	T _J =25°C, I _{SD} =-2A, V _{GS} =0V	--	-0.85	-1.2	V

Typical Characteristics

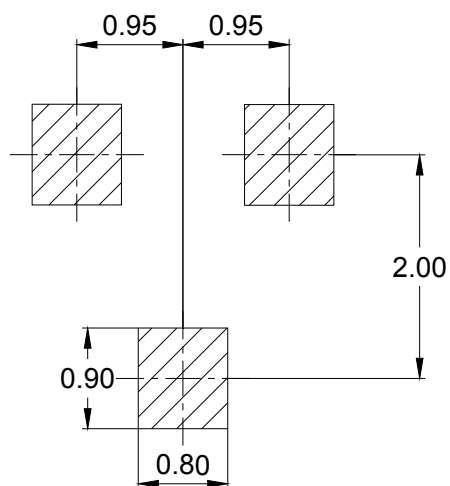


Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit : mm