

AP2302B

N-Channel Power MOSFET

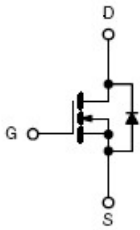
FEATURE

TrenchFET Power MOSFET

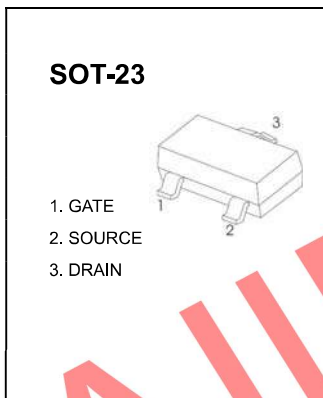
APPLICATIONS

- Load Switch for Portable Devices
- DC/DC Converter

Equivalent Circuit



Pinning



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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 10	
Continuous Drain Current	I_D	2.8	A
Continuous Source-Drain Current(Diode Conduction)	I_S	0.6	
Power Dissipation	P_D	0.35	W
Thermal Resistance from Junction to Ambient ($t \leq 5s$)	$R_{\theta JA}$	357	$^{\circ}\text{C}/\text{W}$
Operating Junction	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~+150	

AP2302B
N-Channel Power MOSFET
Electrical characteristics (T_a=25°C unless otherwise noted)

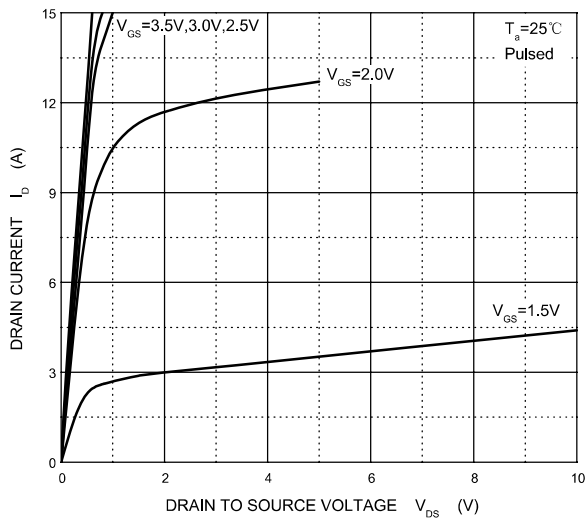
Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Static						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 10μA	20			V
Gate-threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 50μA	0.55	0.70	1.2	
Gate-body leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±10V			±100	nA
Zero gate voltage drain current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V			1	μA
Drain-source on-resistance ^a	r _{DS(on)}	V _{GS} = 4.5V, I _D = 2.8A		0.045	0.055	Ω
		V _{GS} = 2.5V, I _D = 2.0A		0.055	0.070	
Forward transconductance ^a	g _{fs}	V _{DS} = 5V, I _D = 2.8A		8		S
Diode forward voltage	V _{SD}	I _S = 0.94A, V _{GS} = 0V		0.76	1.2	V
Dynamic						
Total gate charge	Q _g	V _{DS} = 10V, V _{GS} = 4.5V, I _D = 3.6A		4.0	10	nC
Gate-source charge	Q _{GS}			0.65		
Gate-drain charge	Q _{GD}			1.5		
Input capacitance ^b	C _{iss}	V _{DS} = 10V, V _{GS} = 0V, f = 1MHz		300		pF
Output capacitance ^b	C _{oss}			120		
Reverse transfer capacitance ^b	C _{rss}			80		
Switching^b						
Turn-on delay time	t _{d(on)}	V _{DD} = 10V, R _L = 5.5Ω, I _D ≈ 3.6A, V _{GEN} = 4.5V, R _g = 6Ω		7	15	ns
Rise time	t _r			55	80	
Turn-off delay time	t _{d(off)}			16	60	
Fall time	t _f			10	25	

Notes :

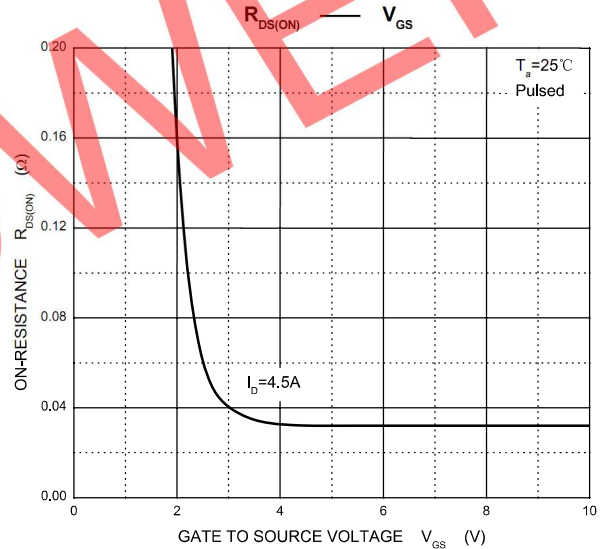
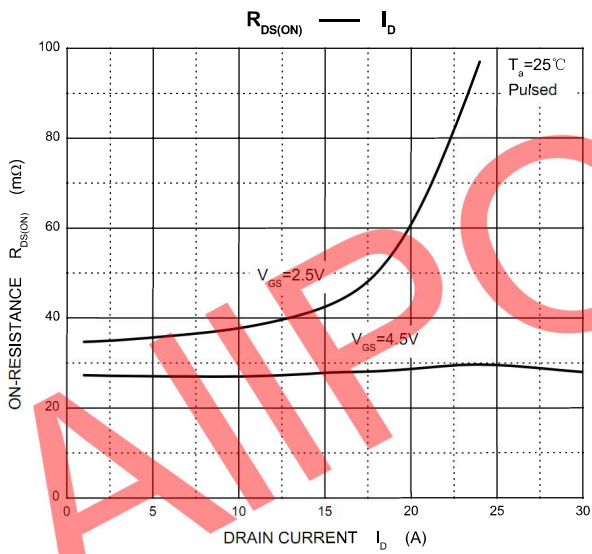
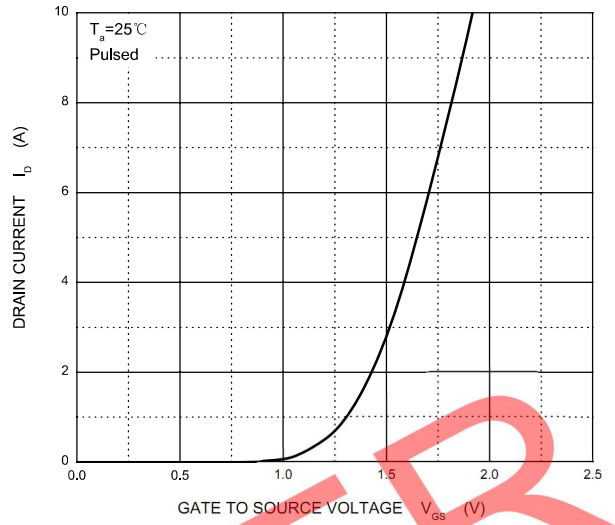
- Pulse Test : Pulse width ≤ 300μs, duty cycle ≤ 2%.
- These parameters have no way to verify.

AP2302B
N-Channel Power MOSFET

Output Characteristics



Transfer Characteristics



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [MOSFET](#) category:

Click to view products by [Quan Li](#) manufacturer:

Other Similar products are found below :

[614233C](#) [648584F](#) [MCH3443-TL-E](#) [MCH6422-TL-E](#) [FDPF9N50NZ](#) [FW216A-TL-2W](#) [FW231A-TL-E](#) [APT5010JVR](#) [NTNS3A92PZT5G](#)
[IRF100S201](#) [JANTX2N5237](#) [2SK2464-TL-E](#) [2SK3818-DL-E](#) [FCA20N60_F109](#) [FDZ595PZ](#) [STD6600NT4G](#) [FSS804-TL-E](#) [2SJ277-DL-E](#)
[2SK1691-DL-E](#) [2SK2545\(Q,T\)](#) [D2294UK](#) [405094E](#) [423220D](#) [MCH6646-TL-E](#) [TPCC8103,L1Q\(CM](#) [367-8430-0972-503](#) [VN1206L](#)
[424134F](#) [026935X](#) [051075F](#) [SBVS138LT1G](#) [614234A](#) [715780A](#) [NTNS3166NZT5G](#) [751625C](#) [873612G](#) [IRF7380TRHR](#)
[IPS70R2K0CEAKMA1](#) [RJK60S3DPP-E0#T2](#) [RJK60S5DPK-M0#T0](#) [APT5010JVFR](#) [APT12031JFLL](#) [APT12040JVR](#) [DMN3404LQ-7](#)
[NTE6400](#) [JANTX2N6796U](#) [JANTX2N6784U](#) [JANTXV2N5416U4](#) [SQM110N05-06L-GE3](#) [SIHF35N60E-GE3](#)