

PRODUCT CHARACTERISTICS

VDSS	-30V
$R_{DS(on)}$ Typ($V_{GS} @ -10V$)	36m Ω
$R_{DS(on)}$ Typ($V_{GS} @ -4.5V$)	49m Ω
ID	-4.1A

APPLICATIONS

- Load switch for portable
- DC/DC converter

FEATURES

- * High Density Cell Design For Ultra Low On-Resistance
- * Advanced trench process technology

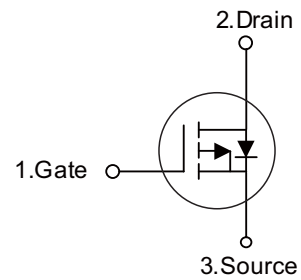
ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	MOT3407A3	SOT-23A-3L	3000pieces/Reel

ABSOLUTE MAXIMUM RATINGS($T_A=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	-4.1	A
Pulsed Drain Current	I_{DM}	-16.4	A
Power Dissipation	P_D	1.3	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	96.2	$^{\circ}C/W$
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	$^{\circ}C$

Symbol

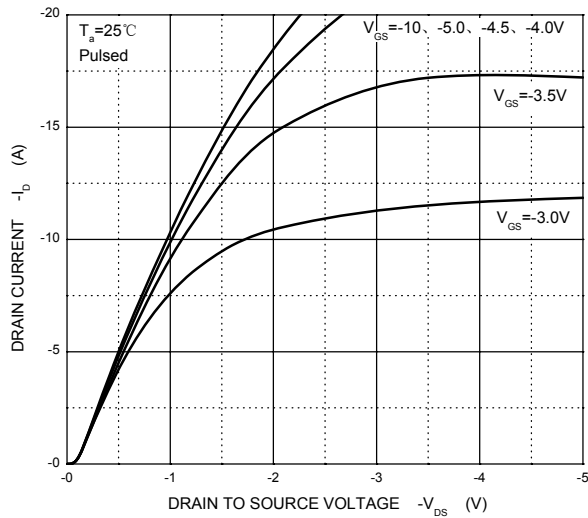


■ ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$, unless otherwise specified)

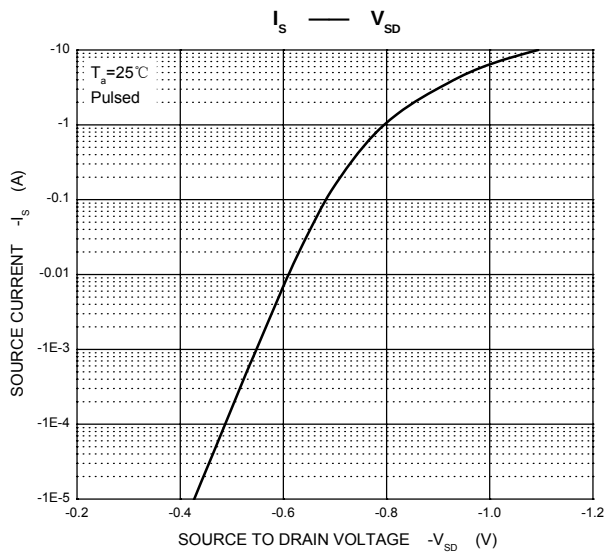
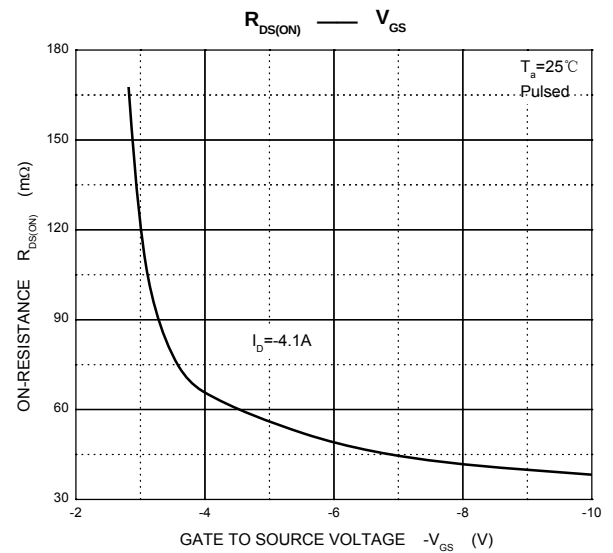
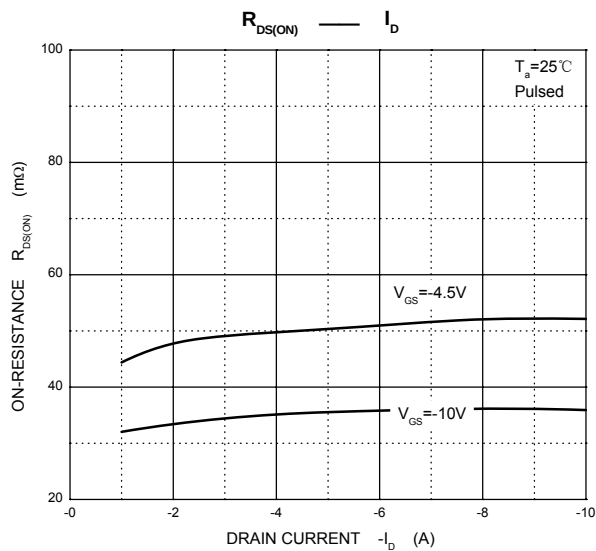
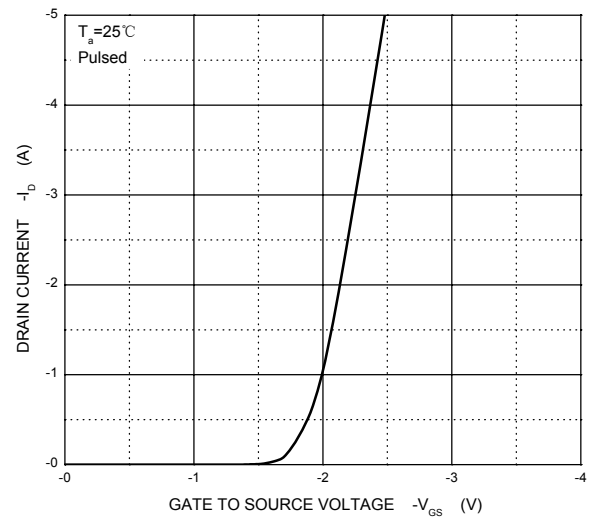
Parameter	Symbol	Condition	Min	Typ	Max	Units
Static characteristics						
Drain-source breakdown voltage	BV _{DSS}	V _{GS} = 0V, I _D =-250μA	-30	-	-	V
Zero gate voltage drain curre	I _{DSS}	V _{DS} =-30V, V _{GS} = 0V	-	-	-1	μA
Gate-source leakage current	I _{GSS}	V _{GS} =±20V, V _{DS} = 0V	-	-	±100	nA
Drain-source on-resistance	R _{DS(on)}	V _{GS} =-10V, I _D =-4.1A	-	36	55	mΩ
		V _{GS} =-4.5V, I _D =-3A	-	49	70	mΩ
Forward tranconductance	g _{FS}	V _{DS} =-5V, I _D =-4A	5.5	-	-	S
Gate threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-1	-1.4	-3	V
Diode forward voltage	V _{SD}	I _S =-1A, V _{GS} =0V	-	-	-1	V
Dynamic characteristics						
Input capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f =1MHz	-	700	-	pF
Output capacitance	C _{oss}		-	120	-	pF
Reverse transfer capacitance	C _{rss}		-	75	-	pF
Switching characteristics						
Turn-on delay time	t _{d(on)}	V _{GS} =-10V, V _{DS} =-15V, R _L =3.6Ω, R _{GEN} =3Ω	-	8.6	-	ns
Turn-on rise time	t _r		-	5.0	-	ns
Turn-off delay time	t _{d(off)}		-	28.2	-	ns
Turn-off fall time	t _f		-	13.5	-	ns

■ TYPICAL CHARACTERISTICS

Output Characteristics



Transfer Characteristics



■ SOT-23A-3L PACKAGE OUTLINE DIMENSIONS

