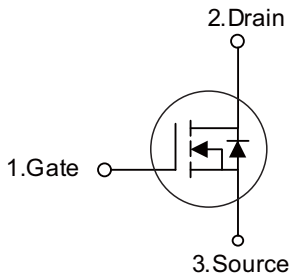
■ PRODUCT CHARACTERISTICS

VDSS	30V
R_{DS}(on)typ(V_{GS}@=10V)	22mΩ
R_{DS}(on)typ(V_{GS}@=4.5V)	24mΩ
R_{DS}(on)typ(V_{GS}@=2.5V)	31mΩ
ID	5.8A

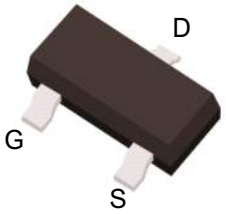
Symbol



■ APPLICATIONS

Load/Power Switching

Interfacing Switching



■ FEATURES

High dense cell design for extremely low $R_{DS(ON)}$

Exceptional on-resistance and maximum DC current capability

■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	MOT3400AB2	SOT-23	3000pieces/Real

■ ABSOLUTE MAXIMUM RATINGS (T_C = 25°C unless otherwise noted)

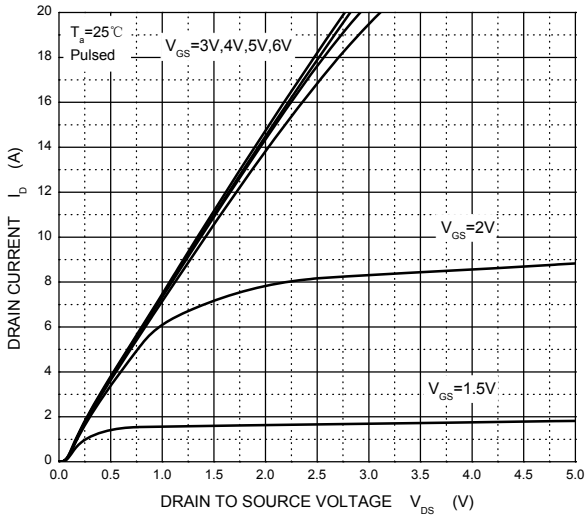
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	5.8	A
Drain Current-Pulsed (note 1)	I_{DM}	30	A
Power Dissipation	P_D	350	mW
Thermal Resistance from Junction to Ambient (note 2)	$R_{\theta JA}$	357	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

■ELECTRICAL CHARACTERISTICS (T_C=25°C, unless otherwise specified)

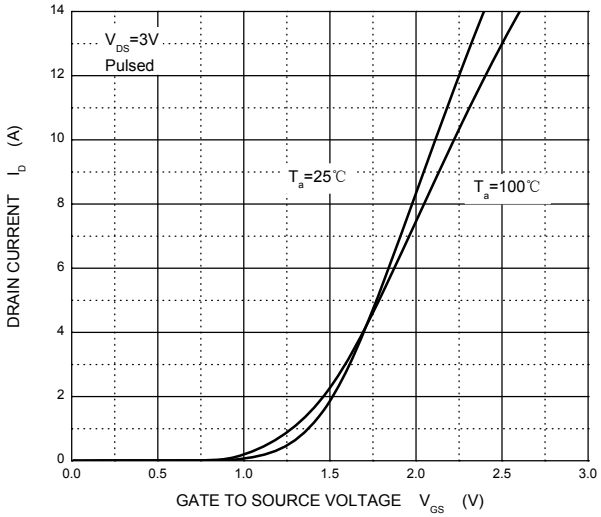
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Off characteristics						
Drain-source breakdown voltage	$V_{(BR)\ DSS}$	V_{GS} = 0V, I_D =250μA	30	-	-	V
Zero gate voltage drain current	I_{DSS}	V_{DS} =24V,V_{GS} = 0V	-	-	1	μA
Gate-source leakage current	I_{GSS}	V_{GS} =±12V, V_{DS} = 0V	-	-	±100	nA
On characteristics						
Drain-source on-resistance	$R_{DS(on)}$	V_{GS} =10V, I_D =5.8A	-	22	30	mΩ
		V_{GS} =4.5V, I_D =5A	-	24	30	mΩ
		V_{GS} =2.5V,I_D=4A	-	31	40	mΩ
Forward tranconductance	g_{FS}	V_{DS} =5V, I_D =5A	8	-	-	S
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	0.7	-	1.4	V
Dynamic characteristics						
Input capacitance	C_{iss}	V_{DS} =15V,V_{GS} =0V,f =1MHz	-	-	1050	pF
Output capacitance	C_{oss}		-	99	-	pF
Reverse transfer capacitance	C_{rss}		-	77	-	pF
Gate resistance	R_g	V_{DS} =0V,V_{GS} =0V,f =1MHz	-	-	3.6	Ω
Switching characteristics						
Turn-on delay time	$t_{d(on)}$	V_{GS}=10V,V_{DS}=15V, R_L=2.7Ω,R_{GEN}=3Ω	-	5	-	ns
Turn-on rise time	t_r		-	7	-	ns
Turn-off delay time	$t_{d(off)}$		-	40	-	ns
Turn-off fall time	t_f		-	6	-	ns
Drain-source diode characteristics and maximum tatings						
Diode forward voltage	V_{SD}	I_S=2.9A,V_{GS}=0V	-	-	1	V

■ TYPICAL CHARACTERISTICS

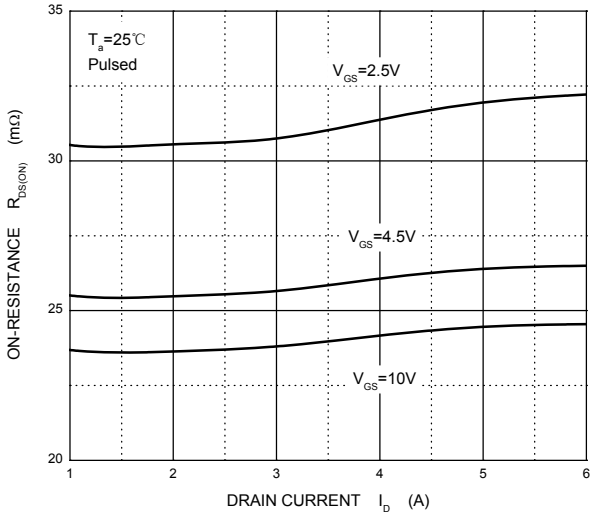
Output Characteristics



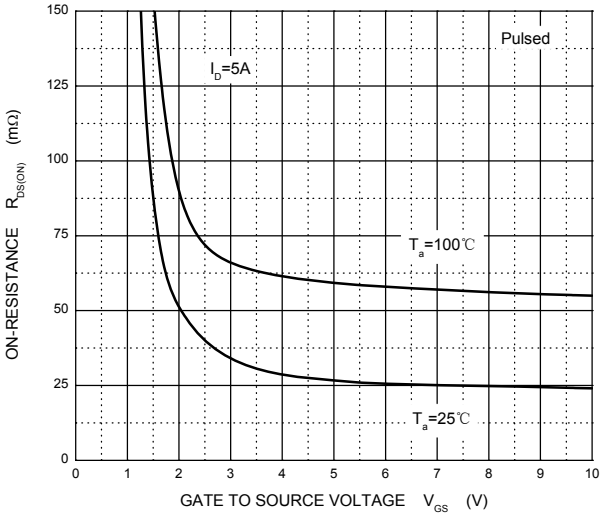
Transfer Characteristics



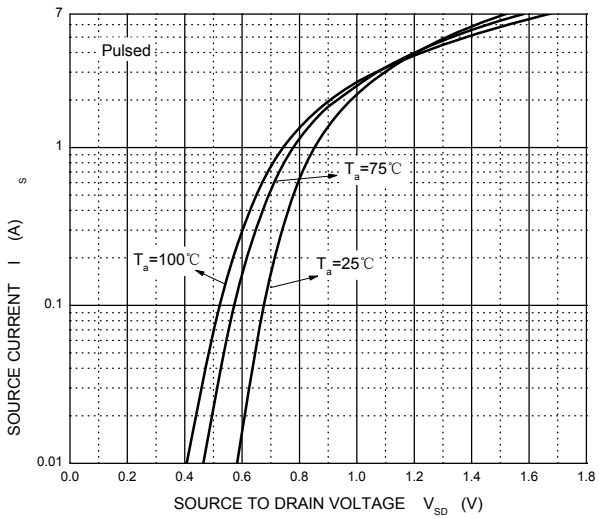
$R_{DS(ON)}$ —— I_D



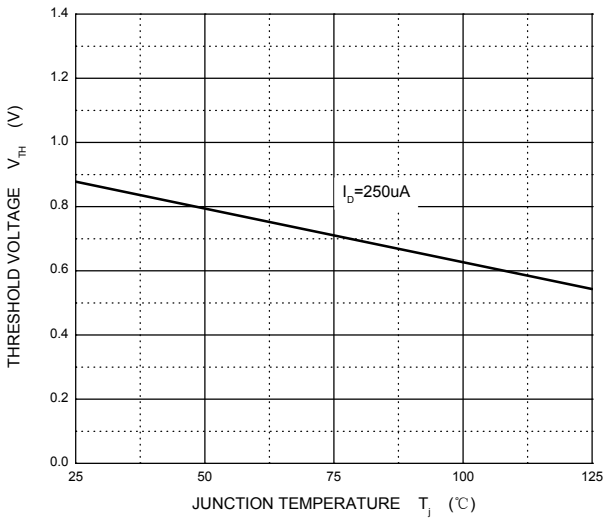
$R_{DS(ON)}$ —— V_{GS}



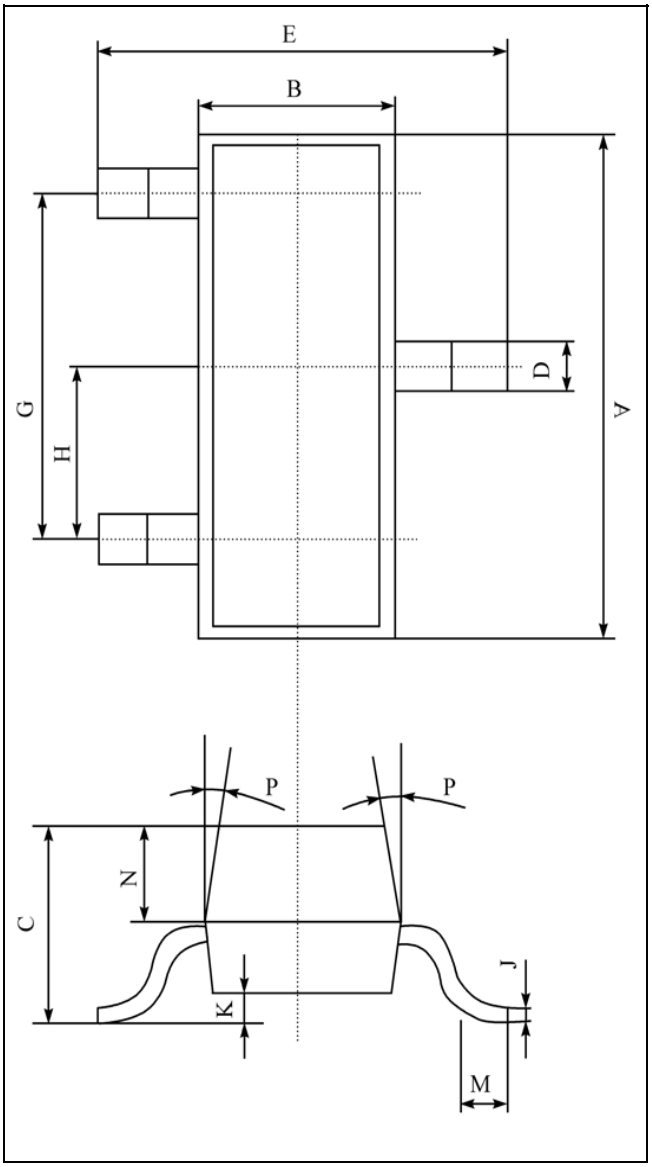
I_S —— V_{SD}



Threshold Voltage



■SOT-23 PACKAGE OUTLINE DIMENSIONS



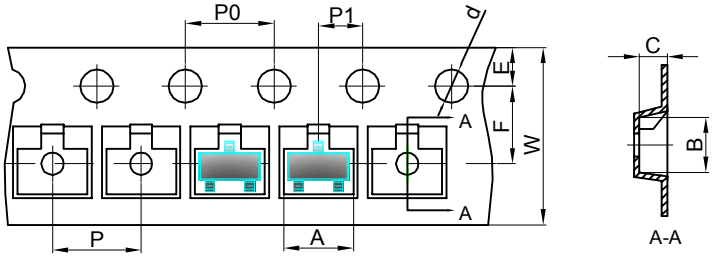
单位（UNIT）：mm

序号	数值及公差
A	2.90±0.10
B	1.30±0.10
C	1.00±0.10
D	0.40±0.10
E	2.40±0.20
G	1.90±0.10
H	0.95±0.05
J	0.13±0.05
K	0.00-0.10
M	≥0.20
N	0.60±0.10
P	7±2°

Packing
SOT-23 包装规格
SMD片式表面贴封装
包装方式: 载带卷盘包装
Tape & Reel, 3Kpcs/Reel
每卷数量3000只（3Kpcs/Reel）
每盒数量45000只（45Kpcs/BOX）
每箱数量180000只（180Kpcs/Cartons）

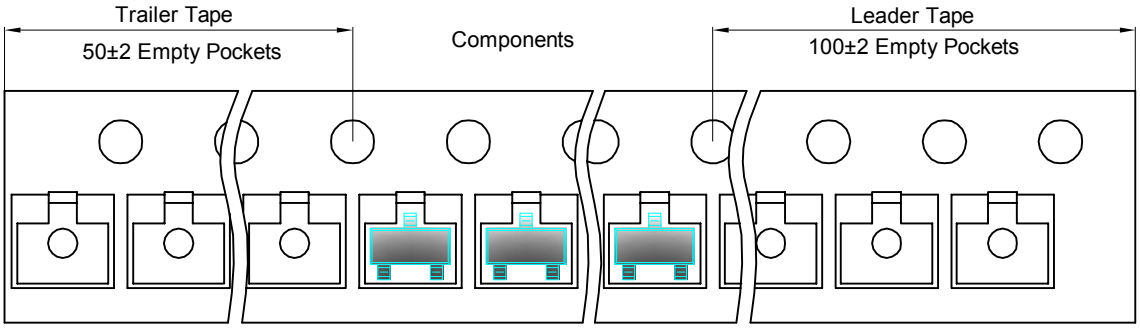
SOT-23 Tape and reel

SOT-23 Embossed Carrier Tape

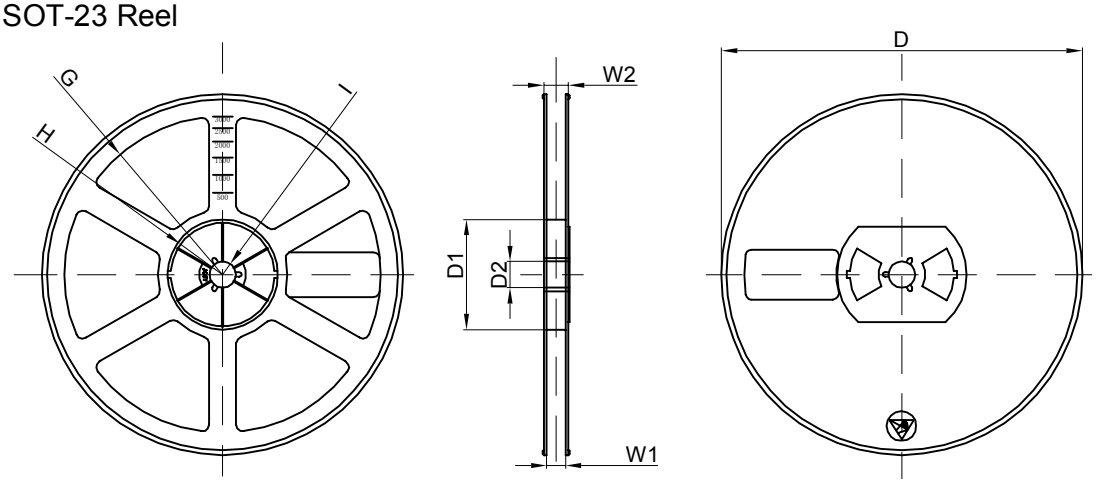


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer



SOT-23 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	192×192×193	180,000 pcs	404×404×214	