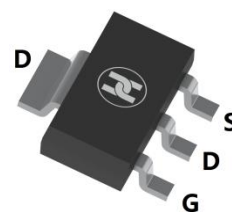
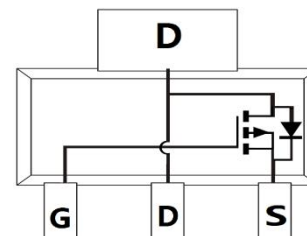


P-CHANNEL HIGH VOLTAGE MOSFET
FEATURES

- $V_{DS}=-100V, R_{DS(ON)}\leq 8\Omega @ V_{GS}=-10V, I_D=-310mA$
- Surface Mount device


SOT-223

MECHANICAL DATA

- Case: SOT-223
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.112 grams (approximate)

MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	-100	V
Gate-source voltage	V_{GS}	± 20	V
Continuous drain current	I_D	-310	mA
Pulsed drain current	I_{DM}	-3	A
Power dissipation	P_D	2.0	W
Operating and Storage temperature	T_J, T_{STG}	-55 ~ +150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
OFF CHARACTERISTICS						
Drain-Source breakdown voltage	$V_{(BR)DSS}$	-100			V	$V_{GS}=0V, I_D=-1mA$
Zero gate voltage drain current(2)	I_{DSS}			-1	μA	$V_{DS}=-100V, V_{GS}=0V,$
				-100	μA	$V_{DS}=-80V, V_{GS}=0V, T_A=+125^\circ C$
Gate-body leakage current	I_{GSS}			-200	nA	$V_{DS}=0V, V_{GS}=\pm 20V$
Gate-threshold voltage	$V_{GS(th)}$	-1.5		-3.5	V	$V_{DS}=V_{GS}, I_D=-1mA$
ON CHARACTERISTICS						
On-State Drain Current(1)	$I_{D(ON)}$	-750			mA	$V_{DS}=-25V, V_{GS}=-10V$
Drain-source on-resistance (1)	$R_{DS(ON)}$			8	Ω	$V_{GS}=-10V, I_D=-375mA$
Forward Trans-conductance (1)(2)	g_{fs}	125			mS	$V_{DS}=-25V, I_D=-375mA$
DYNAMIC CHARACTERISTICS						
Input capacitance (2)	C_{iss}		100		pF	$V_{DS}=-25V, V_{GS}=0V, f=1MHz$
Output capacitance(2)	C_{oss}		35		pF	
Reverse transfer capacitance(2)	C_{rss}		10		pF	
Turn-on delay time(2,3)	$t_{d(on)}$		7		nS	$V_{DD}=-25V, I_D=-375mA$
Turn-on rise time(2,3)	t_r		15		nS	
Turn-off delay time(2,3)	$t_{d(off)}$		12		nS	
Turn-off fall time(2,3)	t_f		15		nS	

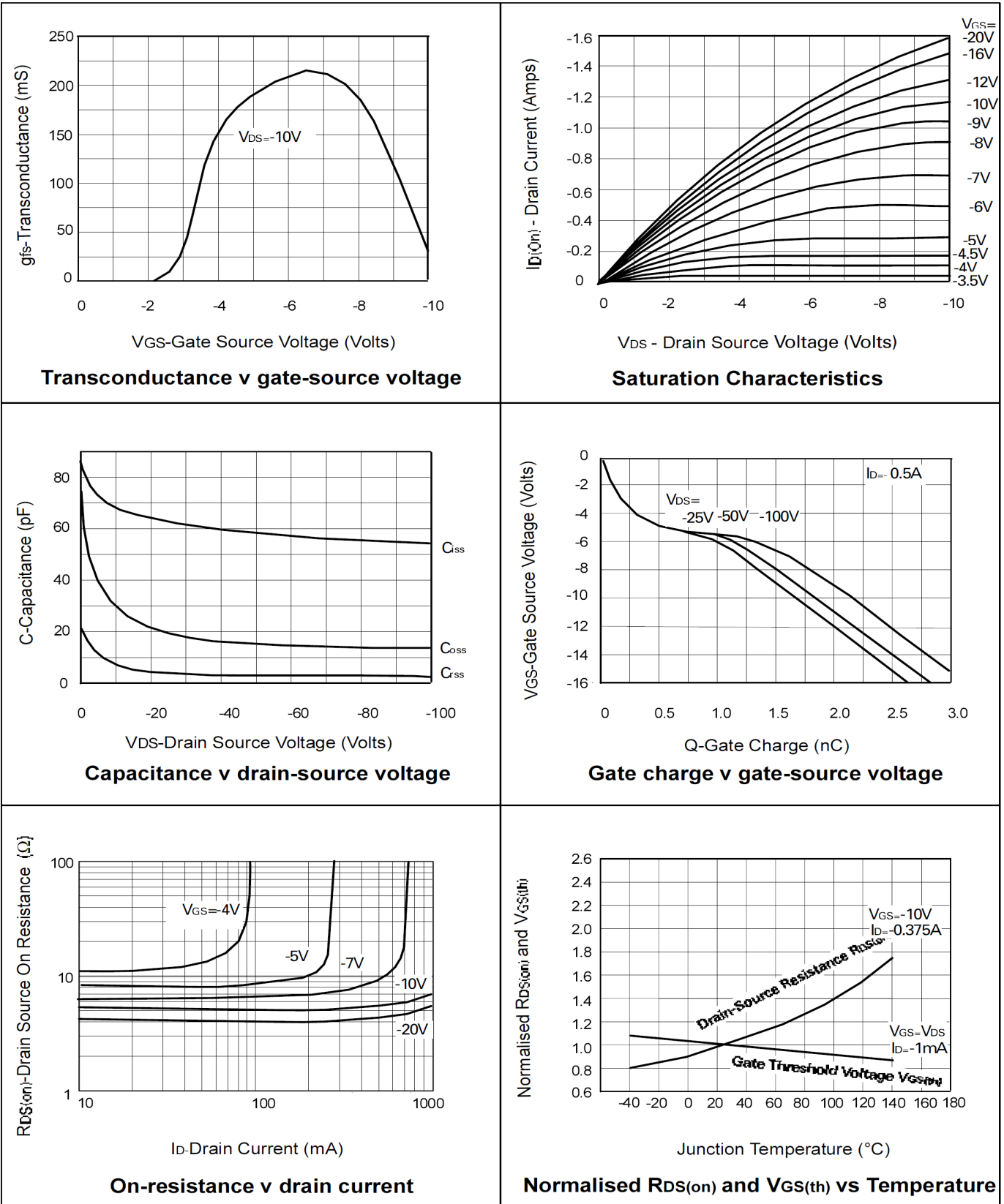
Notes: 1. Measured under pulsed conditions. Width=300 μs . Duty cycle $\leq 2\%$.

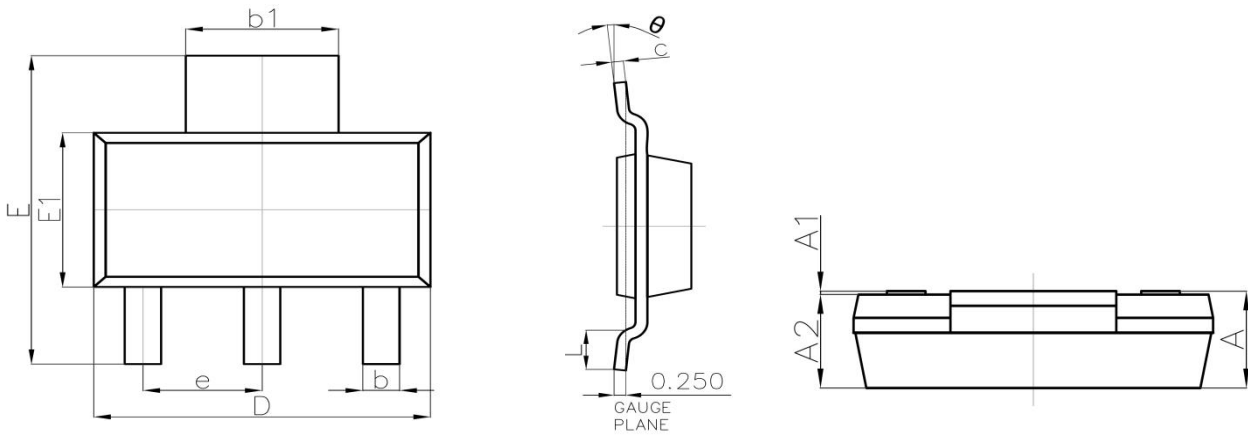
2. Sample test.

3. Switching times measured with 50 Ω source impedance and <5ns rise time on a pulse generator.

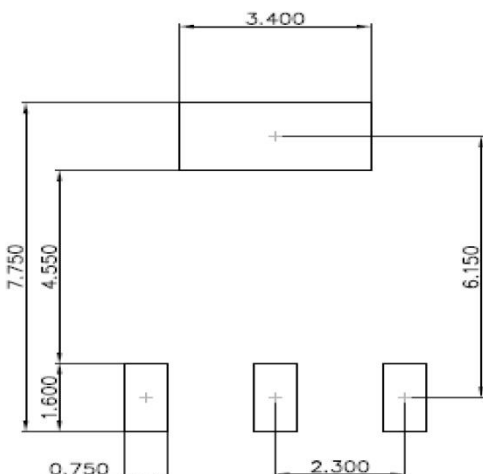
P-CHANNEL HIGH VOLTAGE MOSFET

Typical Characteristics

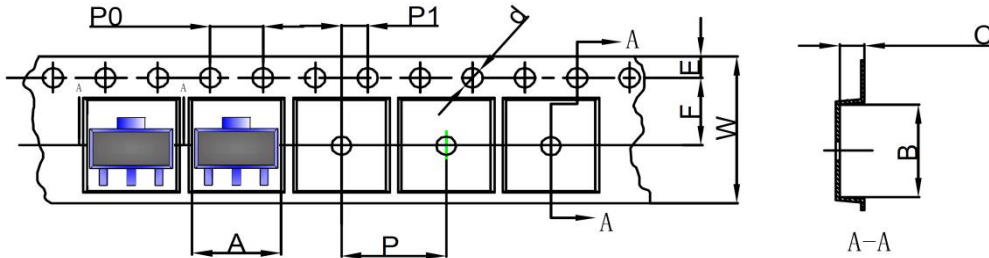


P-CHANNEL HIGH VOLTAGE MOSFET
SOT-223 Package Outline Dimensions


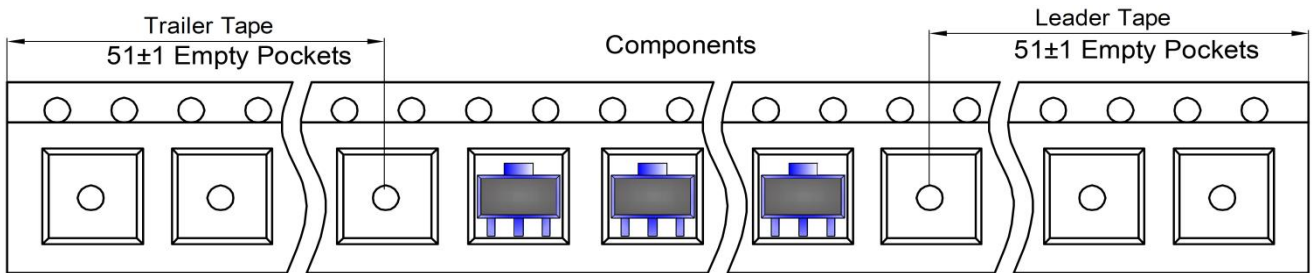
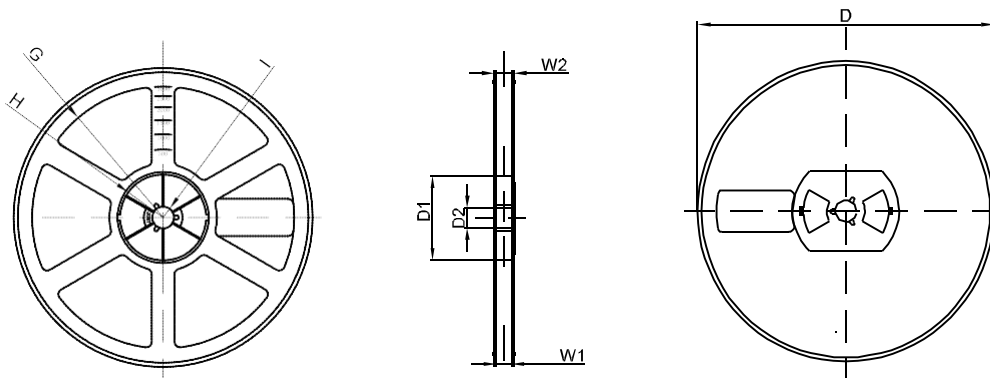
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	—	1.800	-----	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	-----	0.030	-----
θ	0°	10°	0°	10°

SOT-223 Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

P-CHANNEL HIGH VOLTAGE MOSFET
SOT-223 Tape and Reel
SOT-223 Embossed Carrier Tape


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-223	6.765	7.335	1.88	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOT-223 Tape Leader and Trailer

SOT-223 Reel


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
13" DIA	Ø330.00	100.00	13.00	R151.00	R56.00	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1