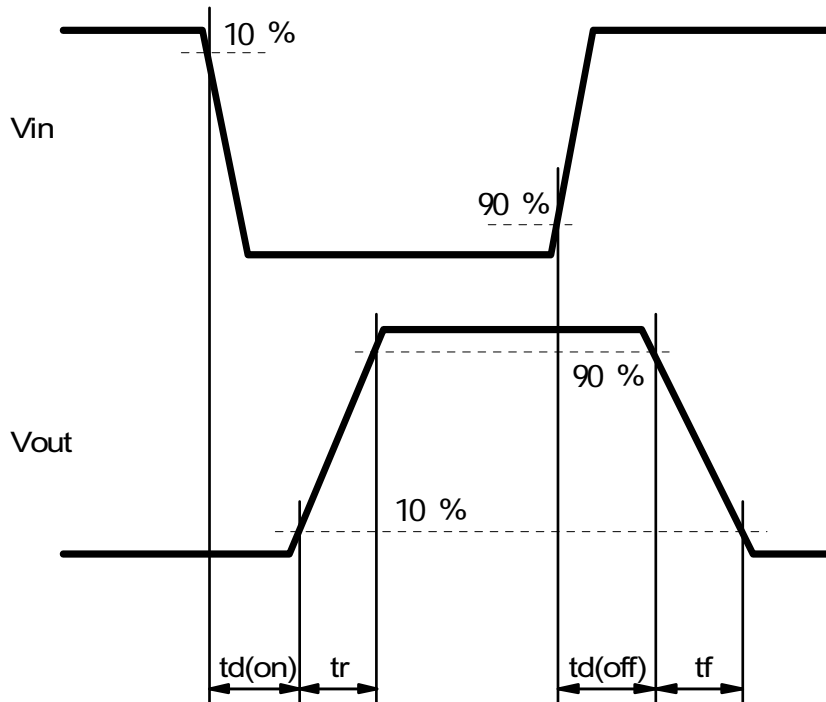
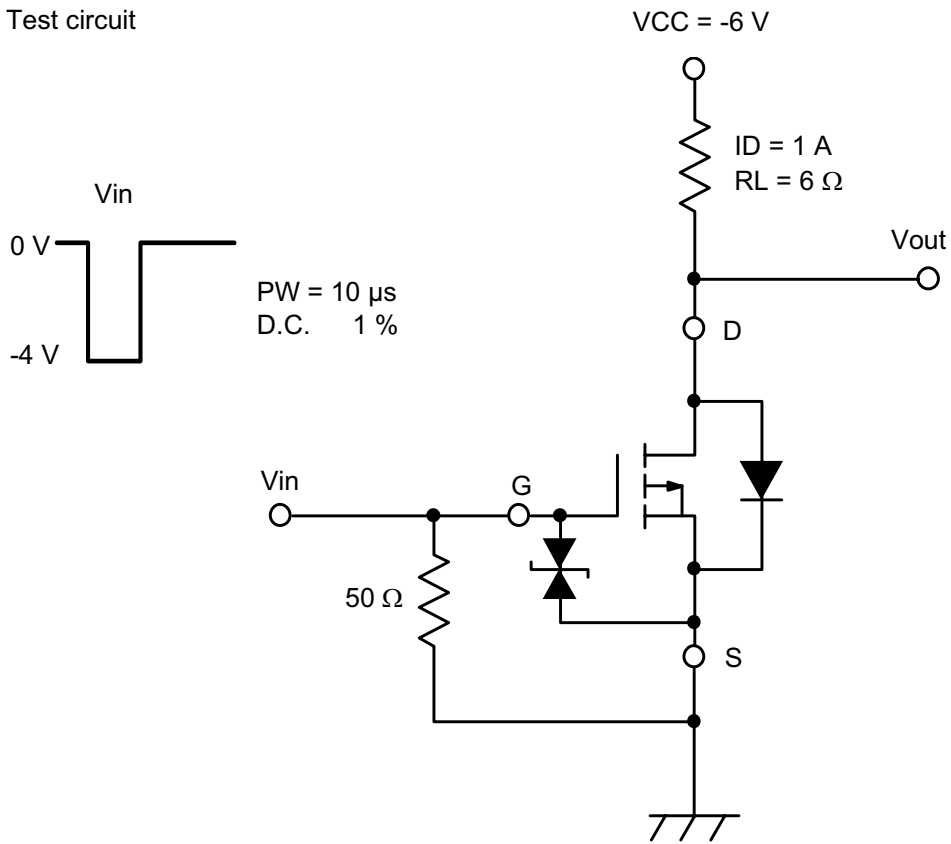


Product Specification Type Number : M T M 6 8 4 1 0 0 <span style="border: 1px solid black; padding: 0 2px;">L</span> B F *1		Prepared by S.Miyata	Checked by M.Fujisawa	Applied by H.Shidooka	Established by K.Komichi		
Type	Silicon Field Effect Transistors						
Application	Switching						
Structure	P-Channel MOS Type						
Outline	WMini8 - F1		Marking		1C		
Absolute Maximum Ratings	VDSS -12 (V)	VGSS ±8 (V)	ID -4.8 (A)	IDp -19 (A)	*2 PD 1.0 (W)	Tch 150 (°C)	Tstg -55 to +150 (°C)
Electrical characteristics (Ta=25 °C ±3 °C )							
Item	Symbol	Measuring condition	Limit			Unit	
			min.	typ.	max.		
Drain-Source Voltage	VDSS	ID = -1 mA, VGS = 0 V	-12			V	
Drain-Source Cutoff Current	IDSS	VDS = -12 V, VGS = 0 V			-1.0	μA	
Gate-Source Cutoff Current	IGSS	VGS = ±6.4 V, VDS = 0 V			±10	μA	
Gate Threshold Voltage	Vth	ID = -1.0 mA, VDS = -6.0 V	-0.3	-0.65	-1.0	V	
Drain Resistance (ON) 1	RDS(ON) 1	ID = -1 A, VGS = -4.0 V		32	42	mΩ	
Drain Resistance (ON) 2	RDS(ON) 2	ID = -0.5 A, VGS = -2.5 V		37	55	mΩ	
Drain Resistance (ON) 3	RDS(ON) 3	ID = -0.2 A, VGS = -1.8 V		50	75	mΩ	
Forward Transfer Admittance	Yfs	ID = -1.0 A, VDS = -10 V	3.5			S	
Small-Signal Short-Circuit Input Capacitance	Ciss	VDS = -10 V, VGS = 0, f = 1 MHz		1200		pF	
Small-Signal Short-Circuit Output Capacitance	Coss	VDS = -10 V, VGS = 0, f = 1 MHz		110		pF	
Small-Signal Reverse Transfer Capacitance	Crss	VDS = -10 V, VGS = 0, f = 1 MHz		110		pF	
Turn-on Delay Time	td(on) *3	VDD = -6 V, VGS = 0 to -4 V, ID = -1 A		8		ns	
Rise Time	tr *3	VDD = -6 V, VGS = 0 to -4 V, ID = -1 A		11		ns	
Turn-off Delay Time	td(off) *3	VDD = -6 V, VGS = -4 to 0 V, ID = -1 A		235		ns	
Fall Time	tf *3	VDD = -6 V, VGS = -4 to 0 V, ID = -1 A		85		ns	
<p>Note:</p> <p>Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.</p> <p>*1 Packing Embossed TX Type (Thermo-compression sealing)</p> <p>*2 See test circuit</p> <p>*3 In case of being attached to 300mm<sup>2</sup> area or more of copper foil of a drain on a glass epoxy board (25.4 x 25.4 x 0.8 mm). Absolute maximum rating of PD without a board is 400r</p>							
<p>Internally connected circuit</p>							
2008.01.31							
Established	Revised						

Product Specification  
 Type Number : M T M 6 8 4 1 0 0 L B F  
 \*1

Test circuit

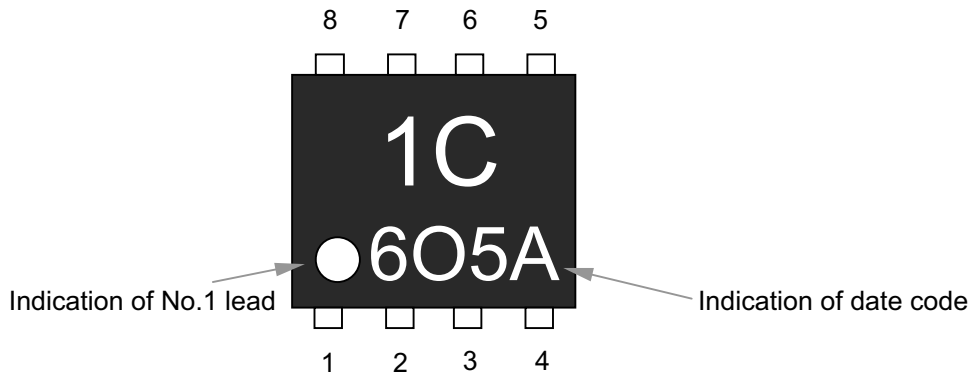


2008.01.31

Established

Revised

Product Specification  
 Mark Indication  
 Type Number : M T M 6 8 4 1 0 0 L B F  
\*1

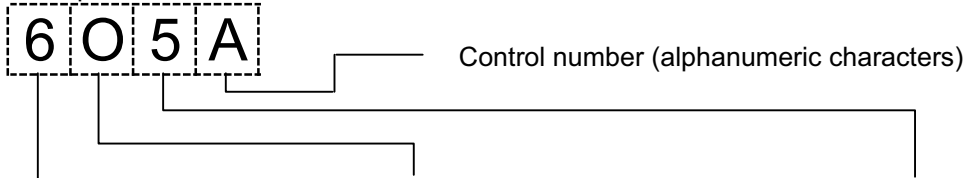


The actual font of product symbol may differ slightly from the font shown in this specification.

Connection

- 1.Source      5.Drain
- 2.Gate        6.Drain
- 3.Source      7.Drain
- 4.Gate        8.Drain

Example of indication of date code



The last digit of year

AD2006	6
AD2007	7
AD2008	8
AD2009	9
AD2010	0

The month of assembly

Jan. to Sep.	1 to 9
Oct.	O
Nov.	N
Dec.	D

The day of assembly

Day	Symbol	Day	Symbol	Day	Symbol
1	1	11	A	21	M
2	2	12	B	22	N
3	3	13	C	23	P
4	4	14	D	24	R
5	5	15	E	25	S
6	6	16	F	26	T
7	7	17	H	27	U
8	8	18	J	28	V
9	9	19	K	29	W
10	0	20	L	30	X
				31	Y

• Factory distinction mark

PSCDD/KUMAMOTO			
WMini8 - F1			

White parts are treated by laser mark.

2008.01.31		
Established	Revised	