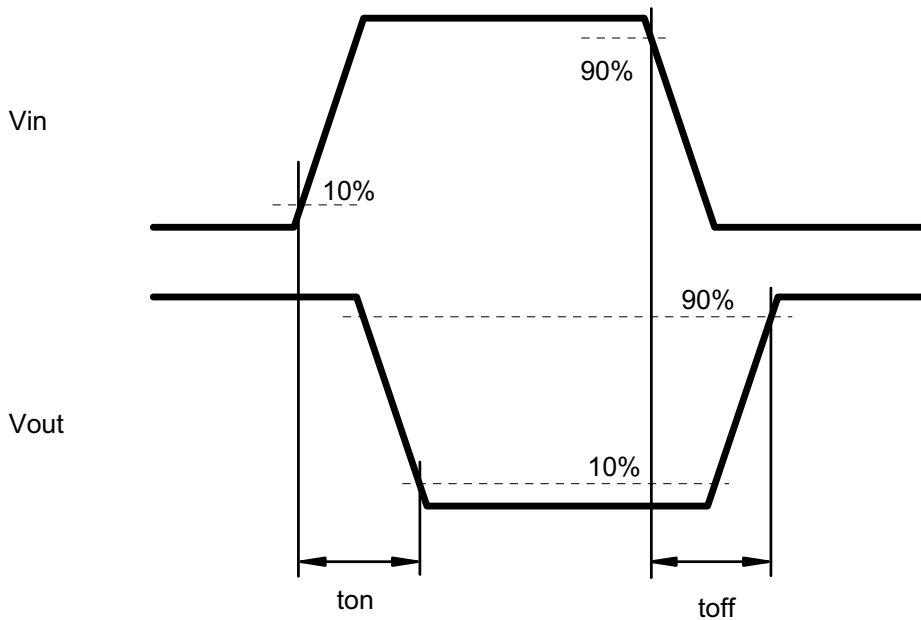
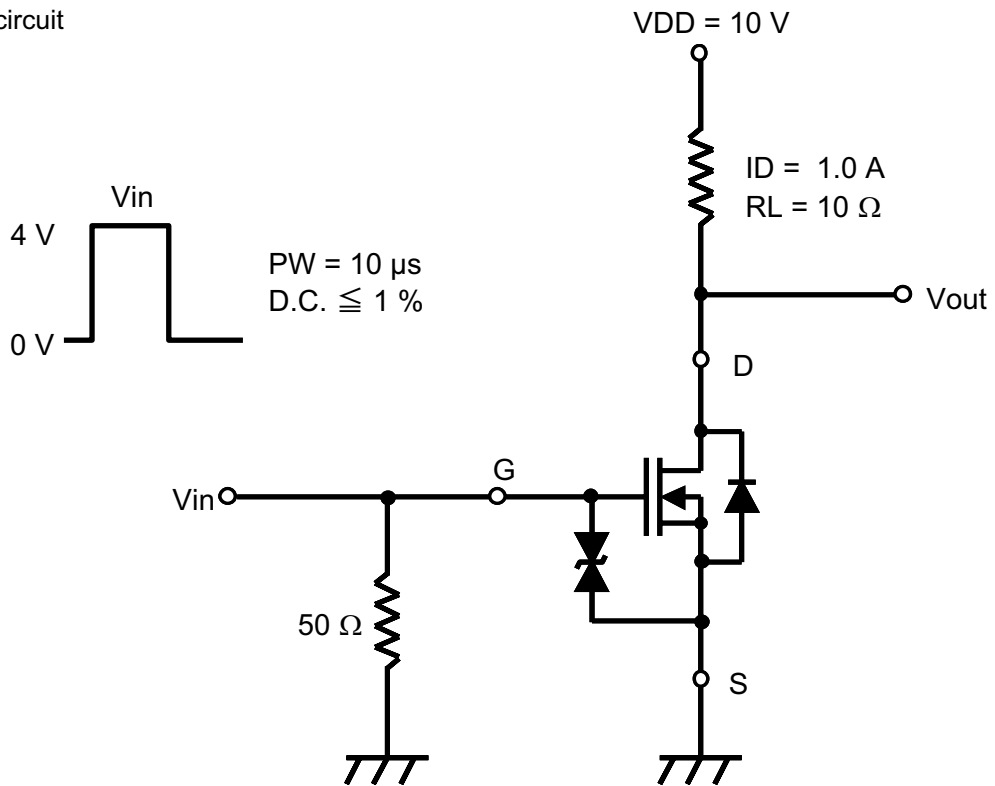


Product Specification Type Number : M T M 8 6 2 2 7 0 <span style="border: 1px solid black; padding: 0 2px;">L</span> B F *1				Prepared by S. Miyata	Checked by M. Fujisawa	Applied by H. Shidooka	Established by <i>K. Komichi</i>
Type	Silicon Field Effect Transistors						
Application	Switching						
Structure	N-Channel MOS Type						
Outline	WSSMini6 - F1				Marking		JF
Absolute Maximum Ratings	VDSS 20 (V)	VGSS $\pm 10$ (V)	ID 2.2 (A)	*2 IDp 8.0 (A)	*3 PD 540 (mW)	Tch 150 (°C)	Tstg -55 to +150 (°C)
Electrical characteristics (Ta= 25 °C $\pm$ 3 °C)							
Item	Symbol	Measuring condition	Limit			Unit	
			min.	typ.	max.		
Drain-Source Voltage	VDSS	ID = 1.0 mA, VGS = 0 V	20			V	
Drain-Source Cutoff Current	IDSS	VDS = 20 V, VGS = 0 V			10	$\mu$ A	
Gate-Source Cutoff Current	IGSS	VGS = $\pm 8.0$ V, VDS = 0 V			$\pm 10$	$\mu$ A	
Gate Threshold Voltage	Vth	ID = 1.0 mA, VDS = 10 V	0.4	0.85	1.3	V	
Drain Resistance (ON) 1	RDS(ON)1 *4	ID = 1.0 A, VGS = 4.0 V		80	105	m $\Omega$	
Drain Resistance (ON) 2	RDS(ON)2 *4	ID = 0.5 A, VGS = 2.5 V		100	150	m $\Omega$	
Drain Resistance (ON) 3	RDS(ON)3 *4	ID = 0.5 A, VGS = 1.8 V		170	300	m $\Omega$	
Forward Transfer Admittance	Yfs  *4	ID = 1.0 A, VDS = 10 V	3.0	4.0		S	
Small-Signal Short-Circuit Input Capacitance	Ciss	VDS = 10 V, VGS = 0 V, f = 1 MHz		280		pF	
Small-Signal Short-Circuit Output Capacitance	Coss	VDS = 10 V, VGS = 0 V, f = 1 MHz		18		pF	
Small-Signal Reverse Transfer Capacitance	Crss	VDS = 10 V, VGS = 0 V, f = 1 MHz		17		pF	
Turn-on Time	ton *5	VDD = 10 V, VGS = 0 to 4 V, ID = 1.0 A		12		ns	
Turn-off Time	toff *5	VDD = 10 V, VGS = 4 to 0 V, ID = 1.0 A		50		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</p> <p>*2 Pulse Width <math>\leq 10 \mu</math>s, Duty Cycle <math>\leq 1 \%</math></p> <p>*3 Measuring on Ceramic substrate at 40<math>\times</math>38<math>\times</math>0.2mm. Absolute maximum rating PD without heat sink shall be made 150mW.</p> <p>*4 Pluse test</p> <p>*5 Refer to the test circuit</p>							
			Internally connected circuit				
2008.01.29							
Established	Revised						

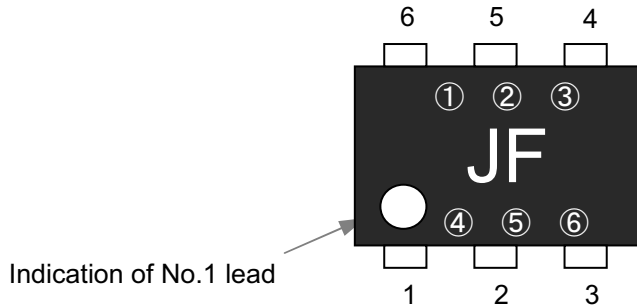
Product Specification  
 Type Number : M T M 8 6 2 2 7 0 L B F  
 \*1

Test circuit

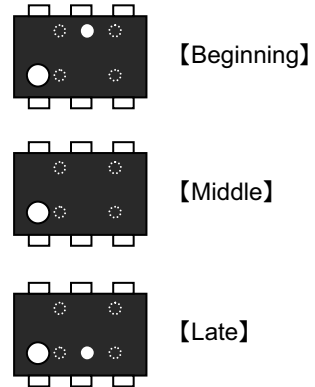


2008.01.29	
Established	Revised

Product Specification  
 Mark Indication  
 Type Number : M T M 8 6 2 2 7 0 L B F  
 \*1

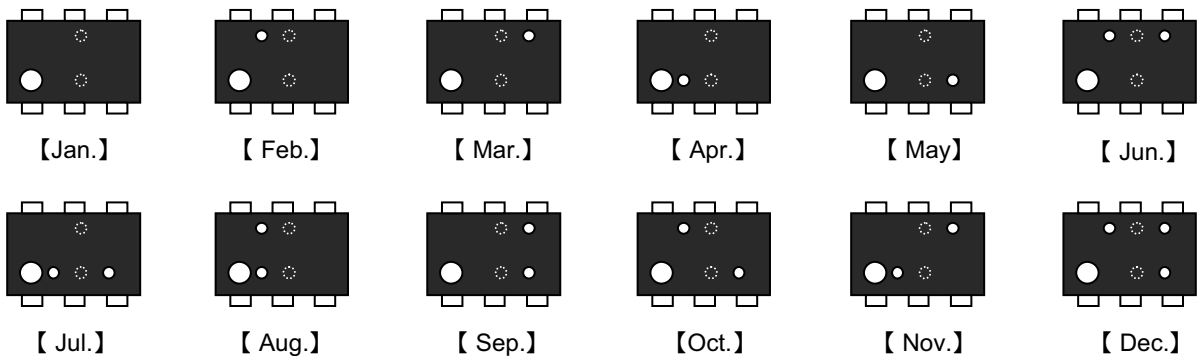


①③④⑥: Indication of produced month  
 ②⑤: Beginning/Middle/Late month indication  
 (only in PSCDD Kumamoto production.)  
 The actual font of product symbol may differ slightly from the font shown in this specification.



Connection  
 1.Drain      4.Source  
 2.Drain      5.Drain  
 3.Gate       6.Drain

《 Example of indication of produced month 》



• Factory distinction mark

PSCDD UTSUNOMIYA	PSCDD KUMAMOTO		
WSSMini6 - F1	WSSMini6 - F1		

※ White parts are treated by laser mark.

2008.01.29		
Established	Revised	