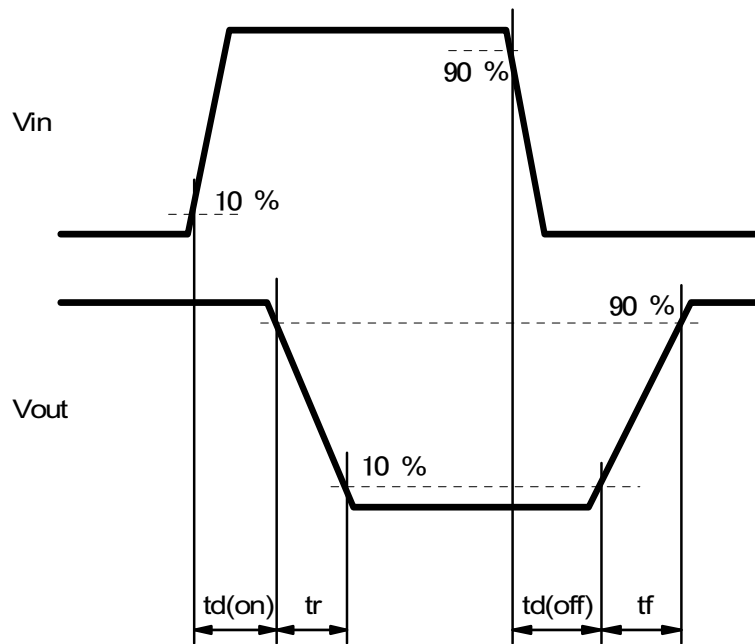
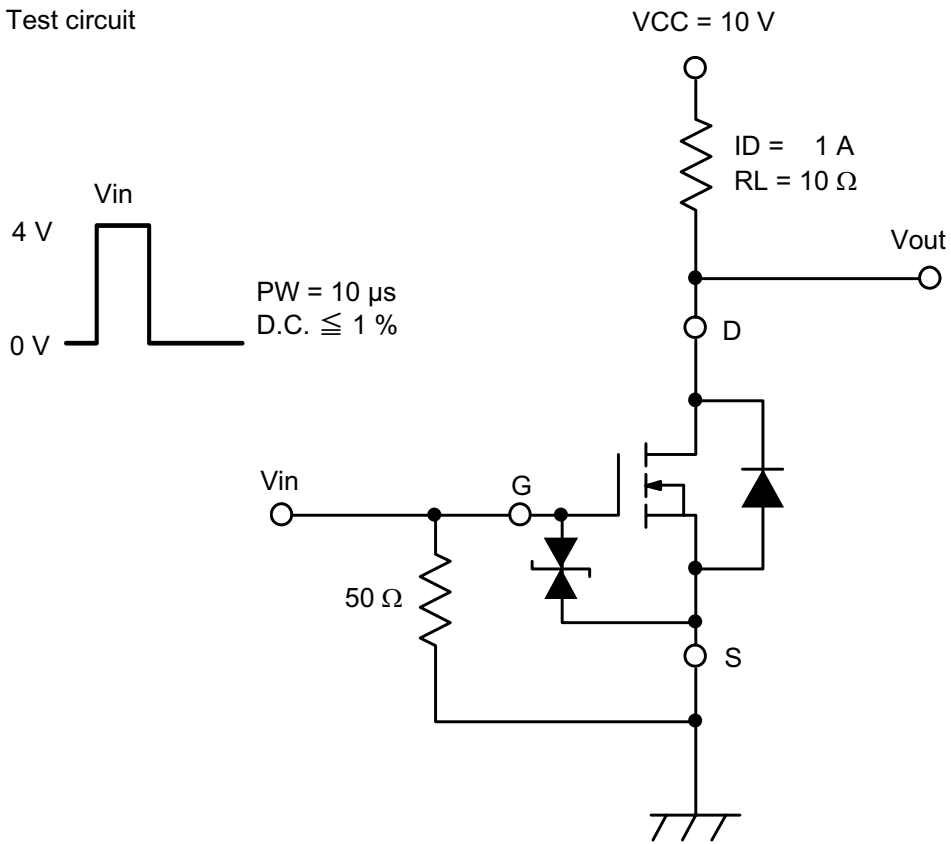


Product Specification TYPE NUMBER : M T M 8 6 7 2 7 0 <span style="border: 1px solid black; padding: 0 2px;">□</span> B F <span style="margin-left: 400px;">*1</span>		Prepared by S.Miyata	Checked by M.Fujisawa	Applied by H.Shidooka	Established by <i>K.Komichi</i>		
Type	Silicon Field Effect Transistors						
Application	Switching						
Structure	N-Channel MOS Type						
Outline	WSSMini6 - F1		Marking		JE		
Absolute Maximum Ratings	VDSS 20 (V)	VGSS $\pm 10$ (V)	ID 2.2 (A)	IDp 8.0 (A)	*2 PD 540 (mW)	Tch 150 ( $^{\circ}$ C)	Tstg -55 to +150 ( $^{\circ}$ C)
Electrical characteristics (Ta=25 $^{\circ}$ C $\pm$ 3 $^{\circ}$ C )							
Item	Symbol	Measuring condition	Limit			Unit	
			min.	typ.	max.		
Drain-Source Voltage	VDSS	ID = 1 mA, VGS = 0 V	20			V	
Drain-Source Cutoff Current	IDSS	VDS = 20 V, VGS = 0 V			1.0	$\mu$ A	
Gate-Source Cutoff Current	IGSS	VGS = $\pm 8$ 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	ID = 1 A, VGS = 4.0 V		80	105	m $\Omega$	
Drain Resistance (ON) 2	RDS(ON) 2	ID = 0.5 A, VGS = 2.5 V		100	150	m $\Omega$	
Forward Transfer Admittance	Yfs	ID = 1.0 A, VDS = 10 V	3.0			S	
Small-Signal Short-Circuit Input Capacitance	Ciss	VDS = 10 V, VGS = 0, f = 1 MHz		280		pF	
Small-Signal Short-Circuit Output Capacitance	Coss	VDS = 10 V, VGS = 0, f = 1 MHz		18		pF	
Small-Signal Reverse Transfer Capacitance	Crss	VDS = 10 V, VGS = 0, f = 1 MHz		17		pF	
Turn-on Delay Time	td(on) *3	VDD = 10 V, VGS = 0 to 4 V, ID = 1 A		5		ns	
Rise Time	tr *3	VDD = 10 V, VGS = 0 to 4 V, ID = 1 A		8		ns	
Turn-off Delay Time	td(off) *3	VDD = 6 V, VGS = 4 to 0 V, ID = 1 A		20		ns	
Fall Time	tf *3	VDD = 6 V, VGS = 4 to 0 V, ID = 1 A		18		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 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>*3 See test circuit</p> <p style="text-align: right;"><u>Internally connected circuit</u></p>							
2008.01.31							
Established	Revised						

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

Test circuit



2008.01.31

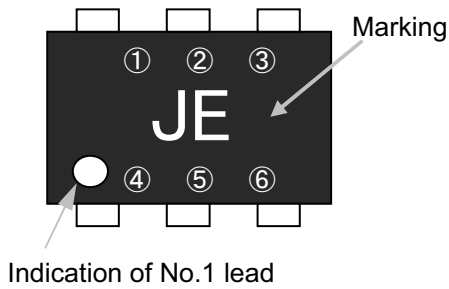
Established

Revised

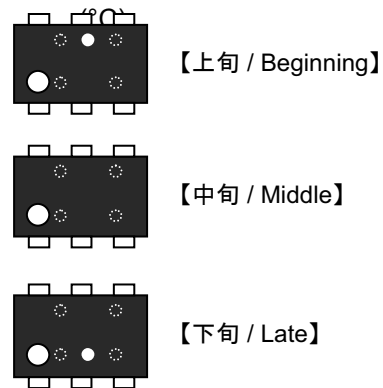
Product Specification						
TYPE NUMBER : M T M 8 6 7 2 7 0 <span style="border: 1px solid black; padding: 0 2px;">L</span> B F						
		*1				
Type	Schottky Barrier Diode					
Application	High Speed Switching					
Structure	Si Epitaxial Planar Type					
Outline	WSSMini6 - F1					
Absolute Maximum Ratings	IF(AV) 800 (mA)	*3 IFSM 3 (A)	VR 20 (V)	Tj 125 (°C)	Tstg -55 to +125 (°C)	
Electrical characteristics (Ta=25 °C ±3 °C )						
Item	Symbol	Measuring condition	Limit			Unit
			min.	typ.	max.	
Forward Voltage	VF	IF = 800 mA			0.47	V
Reverse Current	IR	VR = 20 V			80	μA
<p>Note:</p> <p>Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 Measuring methods for diodes.</p> <p>*3 50 Hz Sine Wave 1 Cycle (Non-Repetitive Peak Current)</p>						
2008.01.31						
Established	Revised					

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

Mark layout



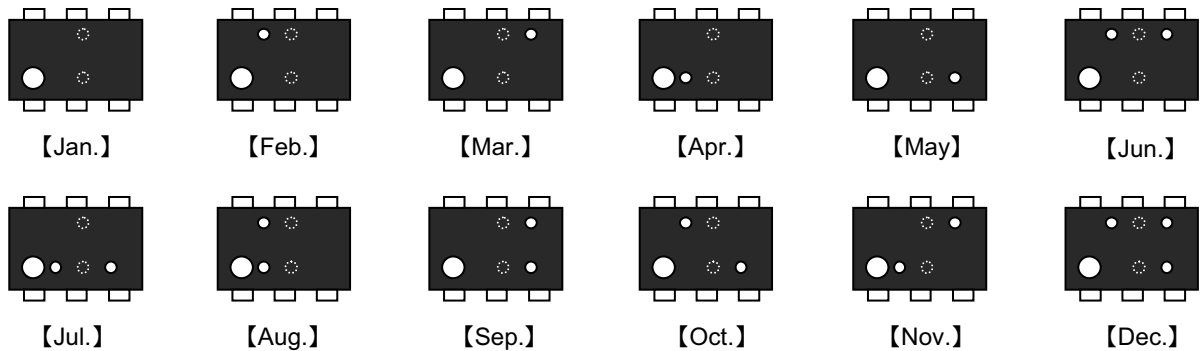
《②⑤ : Example of indication of beginning/middle/late month indication》




①③④⑥ : Indication of produced month  
 ②⑤ : Display position of beginning/middle/late month indication

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

《Example of indication of produced month》



• Factory distinction mark

Factory	JAPAN
Package code	WSSMini6 - F1
Marking	No indication
	

※ White parts are treated by laser mark.

2008.01.31	
Established	Revised