



# PJM3401PSA

## P-Enhancement Field Effect Transistor

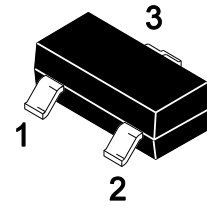
### Features

- High density cell design for ultra low  $R_{DS(ON)}$
- Fully characterized avalanche voltage and current
- Excellent package for good heat dissipation

### Applications

- Power switching application
- Hard switched and high frequency circuits
- Uninterruptible power supply

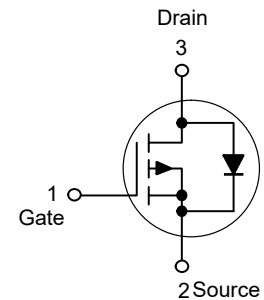
SOT-23



1. Gate 2.Source 3.Drain

Marking: R1

### Schematic Diagram



### Absolute Maximum Ratings

Ratings at  $T_A=25^{\circ}\text{C}$  unless otherwise specified.

Parameter	Symbol	Value	Units
Drain-Source Voltage	$-V_{DS}$	30	V
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Continuous Drain Current	$-I_D$	4.1	A
Power Dissipation	$P_D$	1.2	W
Junction and Storage Temperature Range	$T_J, T_{STG}$	150, -55 to 150	$^{\circ}\text{C}$
<b>Thermal Characteristics</b>			
Parameter	Symbol	Typ.	Units
Maximum Junction-to-Ambient	$R_{\theta JA}$	104	$^{\circ}\text{C/W}$



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### Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Units
<b>Static Characteristics</b>						
Drain-source breakdown voltage	$-V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	30	--	--	V
Drain to Source Leakage Current	$-I_{DSS}$	$V_{DS} = -24V, V_{GS} = 0V$	--	--	1	$\mu A$
Gate-body leakage current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0V$	--	--	$\pm 100$	nA
Gate threshold voltage <sup>Note1</sup>	$-V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	0.7	--	1.3	V
Drain-source on-resistance <sup>Note1</sup>	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -4.1A$	--	--	65	m $\Omega$
		$V_{GS} = -4.5V, I_D = -2A$	--	--	85	m $\Omega$
Forward transconductance <sup>Note1</sup>	$g_{FS}$	$V_{DS} = -5V, I_D = -5A$	7	--	--	S
<b>Dynamic characteristics</b>						
Input Capacitance	$C_{iss}$	$V_{DS} = -15V, V_{GS} = 0V, f = 1MHz$	--	954	--	pF
Output Capacitance	$C_{oss}$		--	115	--	
Reverse Transfer Capacitance	$C_{rss}$		--	77	--	
<b>Switching Characteristics</b>						
Turn-on delay time	$t_{d(on)}$	$V_{DD} = -15V,$ $V_{GS} = -10V, R_{GEN} = 6\Omega,$ $R_L = 3.6\Omega,$	--	--	6.3	ns
Turn-on rise time	$t_r$		--	--	3.2	
Turn-off delay time	$t_{d(off)}$		--	--	38.2	
Turn-off fall time	$t_f$		--	--	12	
<b>Source-Drain Diode characteristics</b>						
Diode Forward voltage	$-V_{DS}$	$V_{GS} = 0V, I_S = -1A$	--	--	1	V

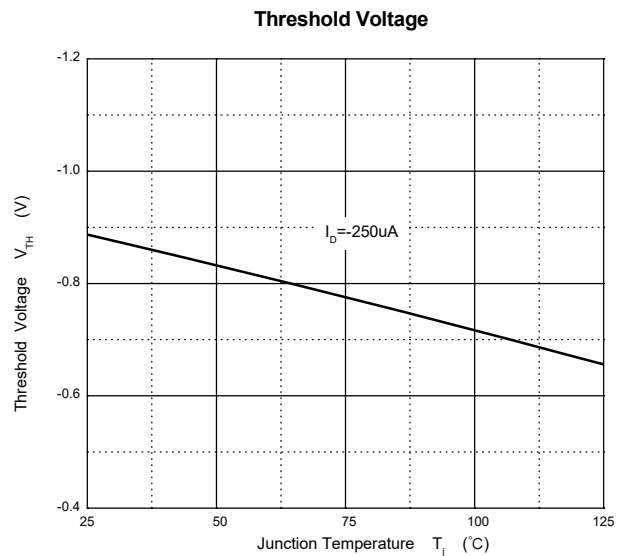
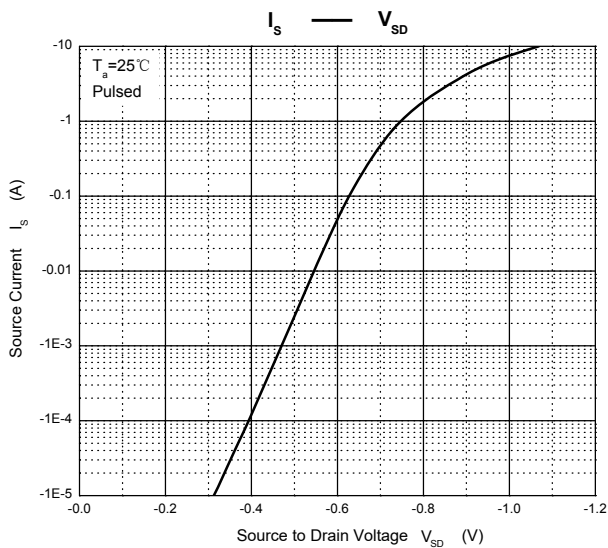
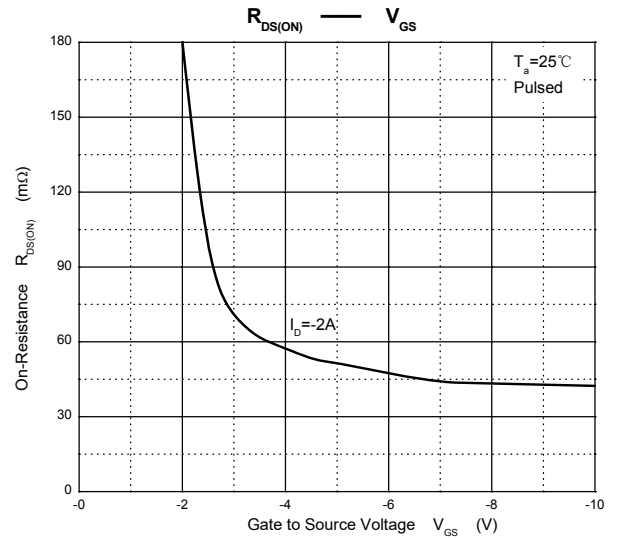
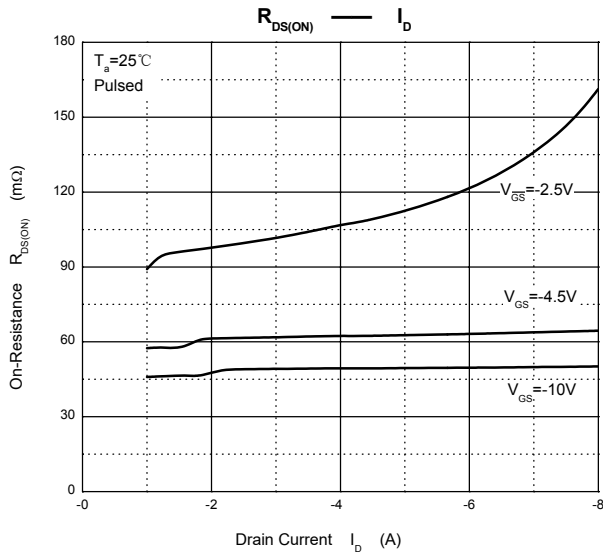
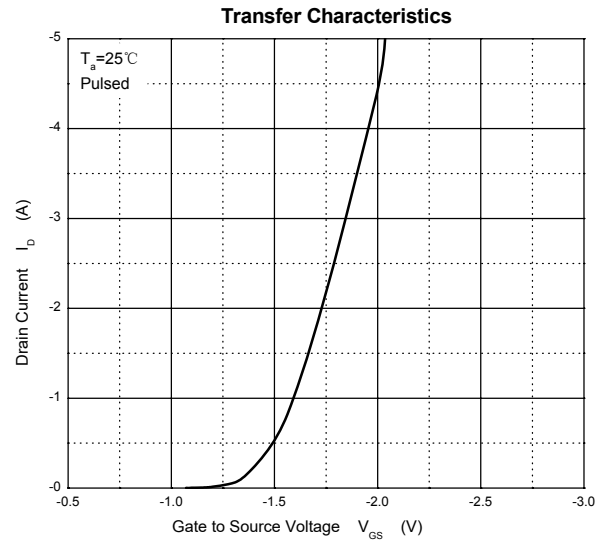
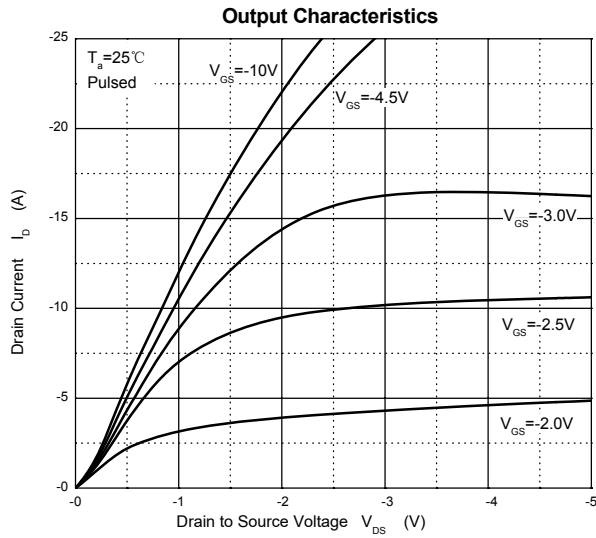
Notes: 1. Pulse test ; pulse width  $\leq 300\mu s$ , duty cycle  $\leq 2\%$ .



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### Typical Curves



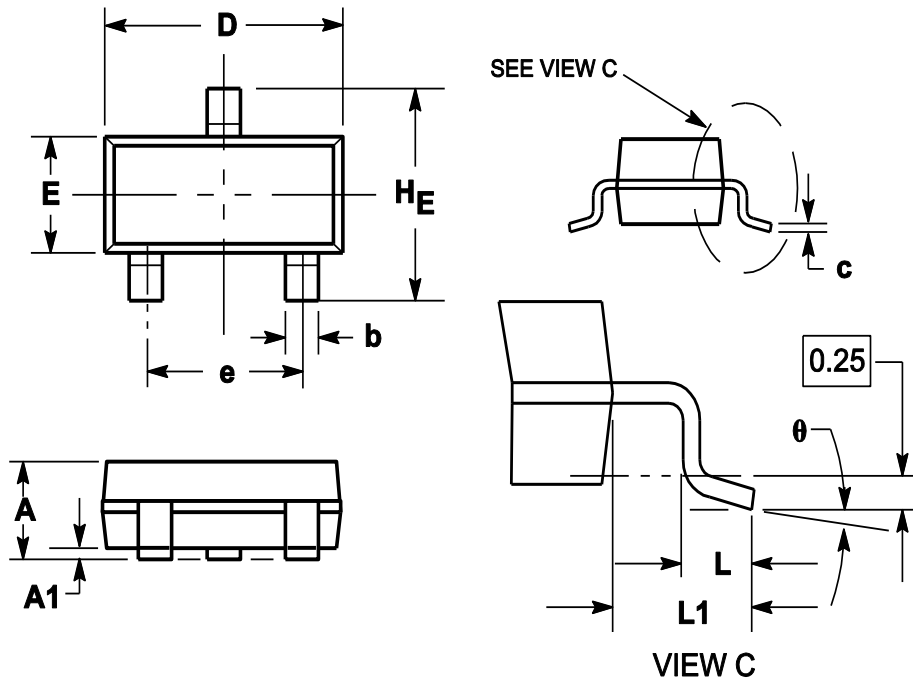


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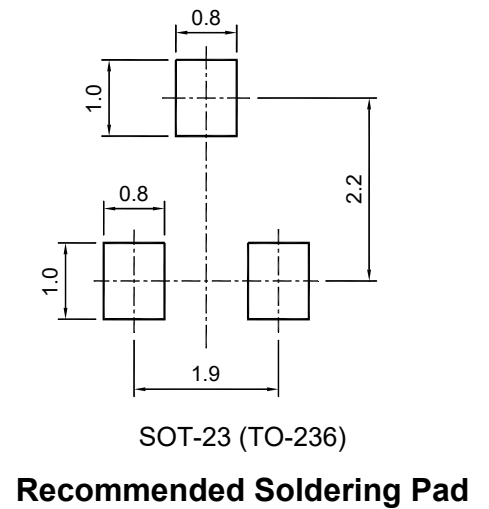
## P-Enhancement Field Effect Transistor

### Package Outline

#### SOT-23 (TO-236)



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
θ	0°		8°



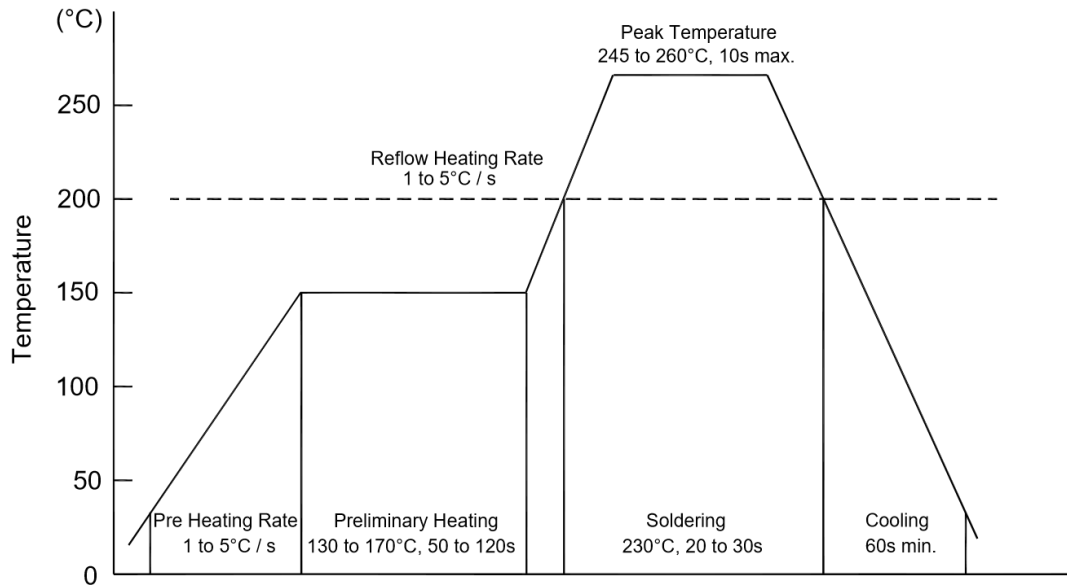
### Ordering Information

Device	Package	Shipping
PJM3401PSA	SOT-23	3000/Reel&Tape(7inch)



### Conditions of Soldering and Storage

#### ◆ Recommended condition of reflow soldering



Recommended peak temperature is over 245 °C. If peak temperature is below 245 °C, you may adjust the following parameters:

- Time length of peak temperature (longer)
- Time length of soldering (longer)
- Thickness of solder paste (thicker)

#### ◆ Conditions of hand soldering

- Temperature: 370 °C
- Time: 3s max.
- Times: one time

#### ◆ Storage conditions

- **Temperature**  
5 to 40 °C
- **Humidity**  
30 to 80% RH
- **Recommended period**  
One year after manufacturing

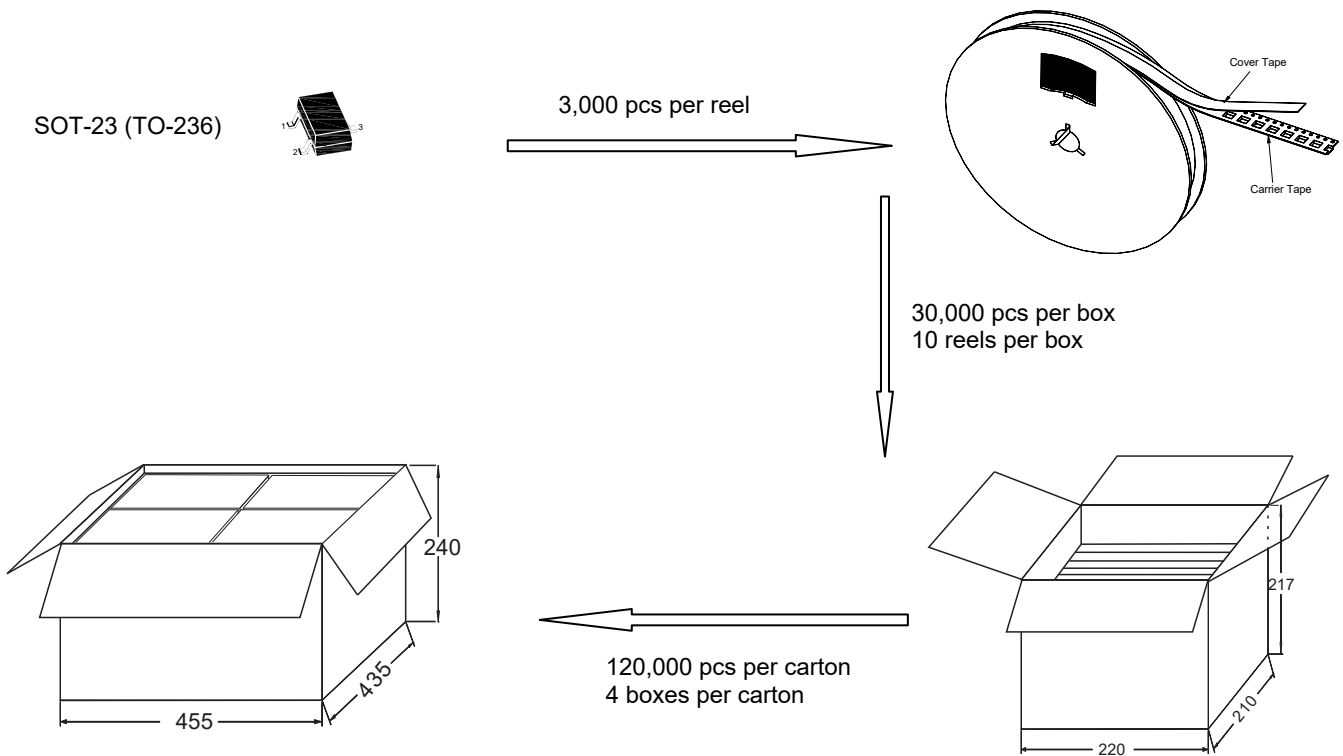


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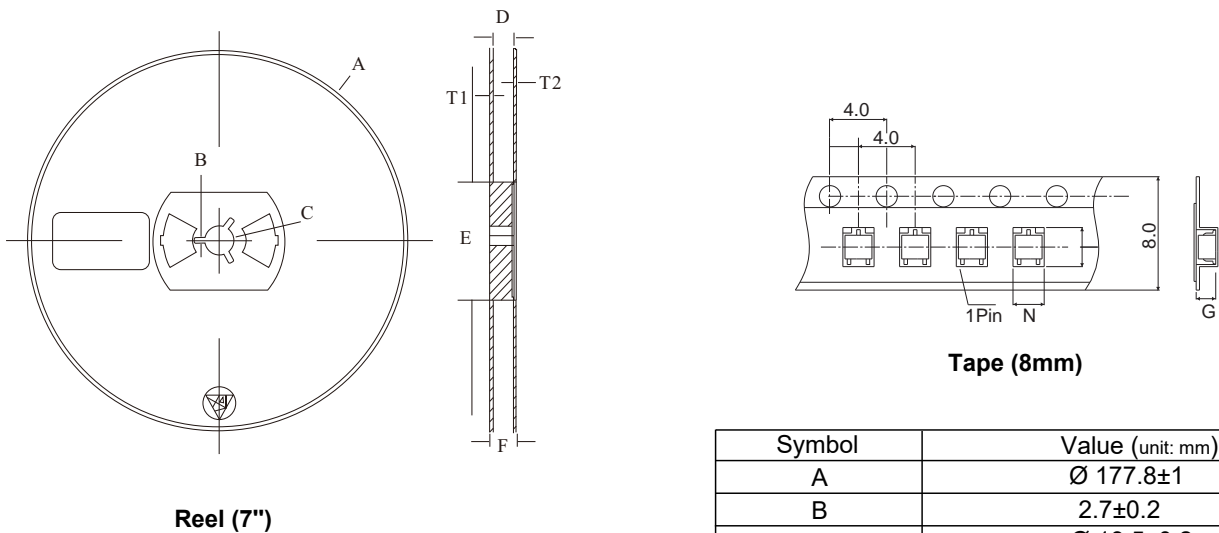
## P-Enhancement Field Effect Transistor

### Package Specifications

1. The method of packaging and dimension are shown as below figure. (Units:mm)



### 2. Tape and reel data (Units:mm)



Symbol	Value (unit: mm)
A	$\varnothing 177.8 \pm 1$
B	$2.7 \pm 0.2$
C	$\varnothing 13.5 \pm 0.2$
E	$\varnothing 54.5 \pm 0.2$
F	$12.3 \pm 0.3$
D	$9.6 + 2 / - 0.3$
T1	$1.0 \pm 0.2$
T2	$1.2 \pm 0.2$
N	$3.15 \pm 0.1$
G	$1.25 \pm 0.1$

单击下面可查看定价，库存，交付和生命周期等信息

[>>PJSEMI\(平晶微\)](#)