



PJM3407PSA

P Enhancement Field Effect Transistor

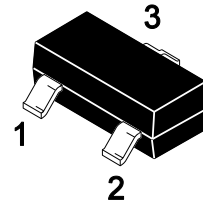
Features

- $V_{DS}=-30V$, $I_D=-4.1A$
 $R_{DS(on)}=50m\Omega$ (Typ.)@ $V_{GS}=-10V$
- High density cell design for ultra low $R_{DS(ON)}$
- Low gate charge

Applications

- Load Switch and in PWM Applications

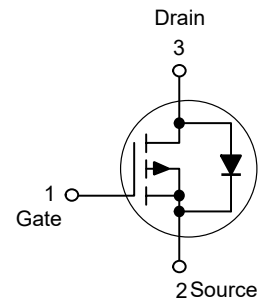
SOT-23



1. Gate 2.Source 3.Drain

Marking: R7

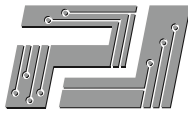
Schematic Diagram



Absolute Maximum Ratings

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

Parameter	Symbol	Value	Units
Drain-Source Voltage	$-V_{DS}$	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$-I_D$	4.1	A
Power Dissipation	P_D	1.4	W
Junction and Storage Temperature Range	T_J, T_{STG}	150, -55 to 150	$^{\circ}C$
Thermal Characteristics			
Parameter	Symbol	Typ.	Units
Maximum Junction-to-Ambient ^{Note1}	$R_{\theta JA}$	89	$^{\circ}C/W$

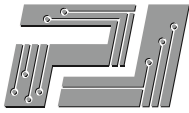


Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Static Characteristics						
Drain-source breakdown voltage	$-V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	30			V
Zero gate voltage drain current	$-I_{DSS}$	$V_{DS} = -24V, V_{GS} = 0V$			1	μA
Gate-source leakage current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 100	nA
Drain-source on-resistance ^{Note2}	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -4.1A$		50	60	m Ω
		$V_{GS} = -4.5V, I_D = -3A$		68	87	m Ω
Gate threshold voltage ^{Note2}	$-V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	1	1.4	3	V
Forward transconductance ^{Note2}	g_{FS}	$V_{DS} = -5V, I_D = -4A$	5.5			S
Dynamic Characteristics						
Input capacitance	C_{iss}	$V_{DS} = -15V, V_{GS} = 0V, f = 1MHz$		700		pF
Output capacitance	C_{oss}			120		pF
Reverse transfer capacitance	C_{rss}			75		pF
Switching Characteristics						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = -10V, V_{DS} = -15V,$ $R_L = 3.6\Omega, R_{GEN} = 3\Omega$		8.6		ns
Turn-on rise time	t_r			5.0		ns
Turn-off delay time	$t_{d(off)}$			28.2		ns
Turn-off fall time	t_f			13.5		ns
Source-Drain Diode Characteristics						
Diode forward voltage	V_{SD}	$I_S = -1A, V_{GS} = 0V$			-1	V

Notes:

1. The value of $R_{\theta JA}$ is measured with the device mounted on 1in² FR-4 board with 2oz. Copper, in a still air environment with $T_A = 25^\circ\text{C}$. The value in any given application depends on the user's specific board design.
2. Pulse test: Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.

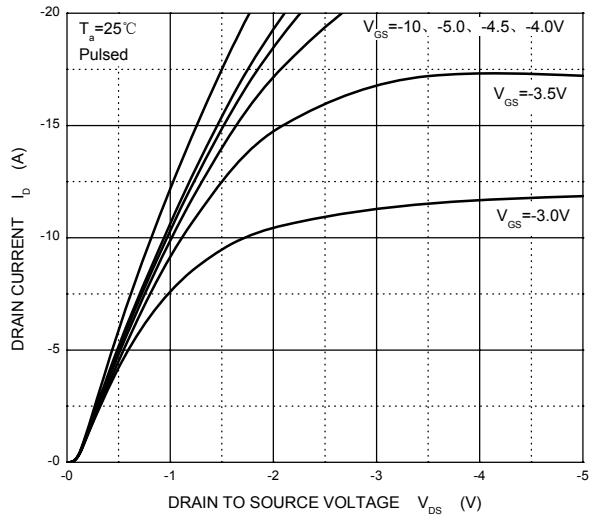


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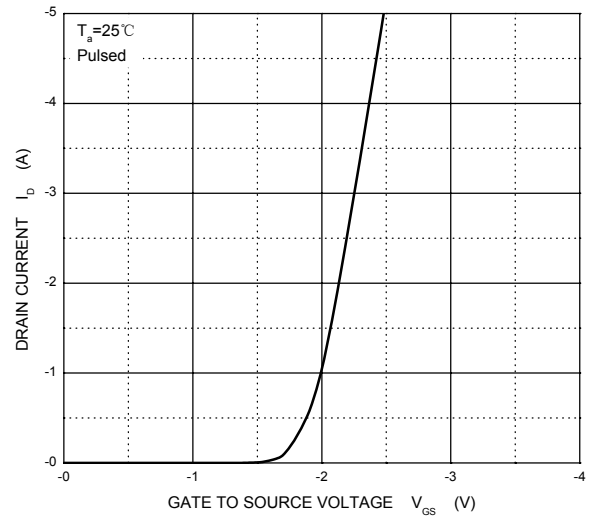
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Typical Curves

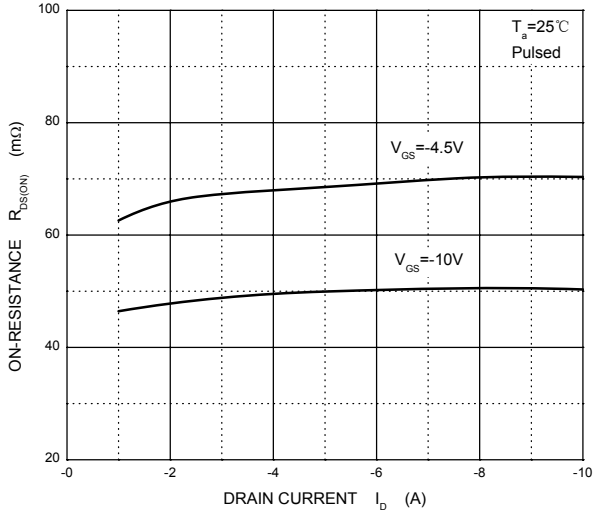
Output Characteristics



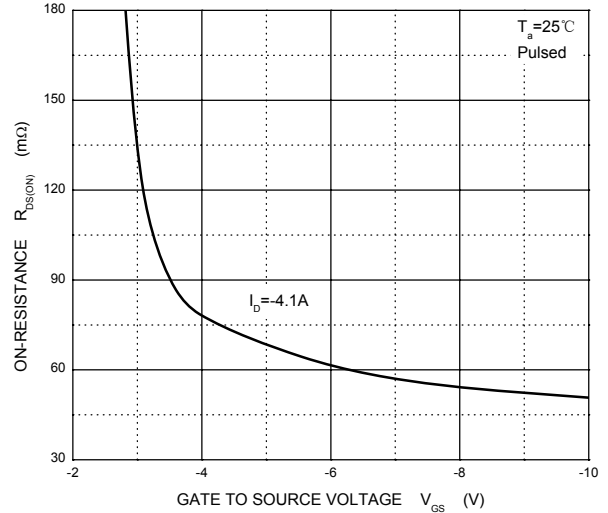
Transfer Characteristics



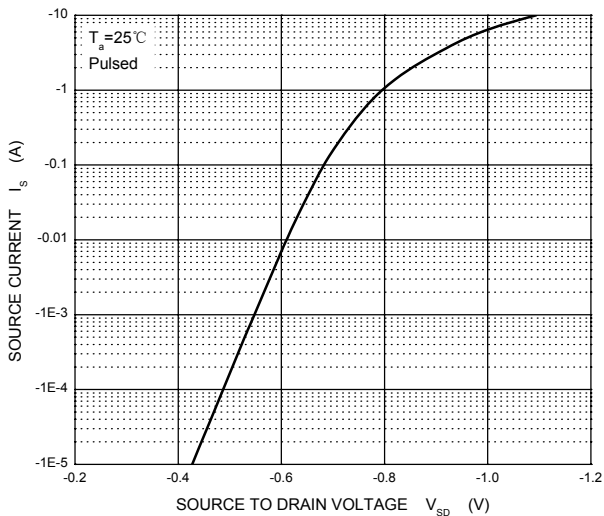
$R_{DS(ON)}$ — I_D



$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}



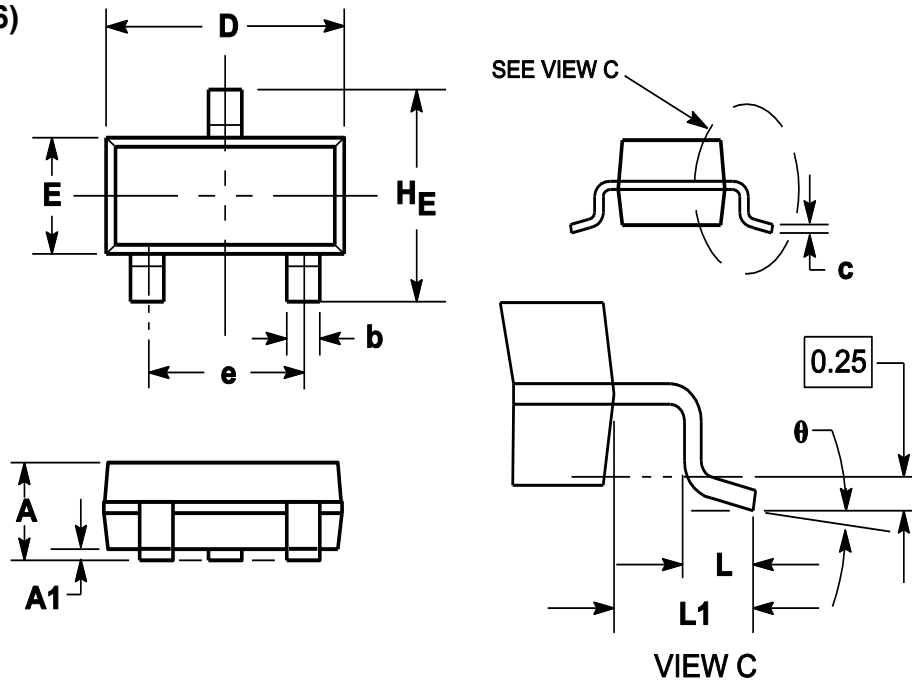


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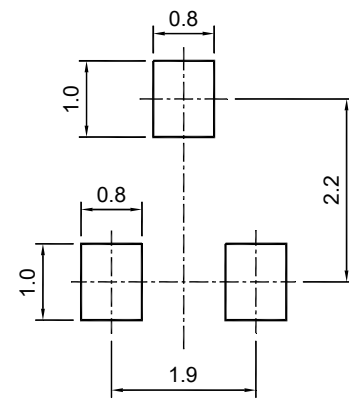
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Package Outline

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°



SOT-23 (TO-236)

Recommended soldering pad

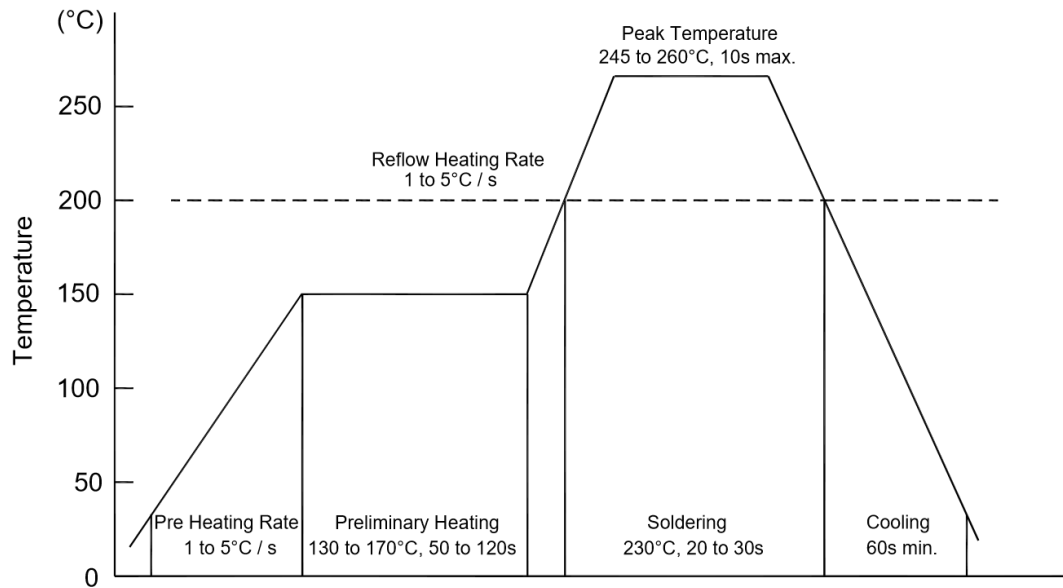
Ordering Information

Device	Package	Shipping
PJM3407PSA	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:

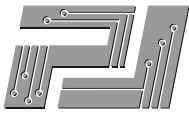
- Time length of peak temperature (longer)
- Time length of soldering (longer)
- Thickness of solder paste (thicker)

◆ 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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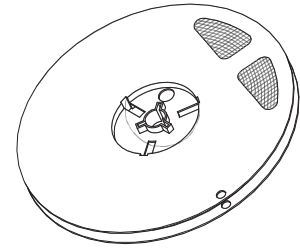
Package Specifications

◆ The method of packaging

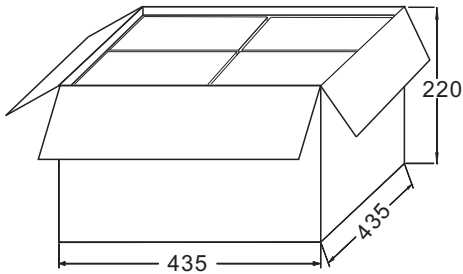
SOT-23 (TO-236)



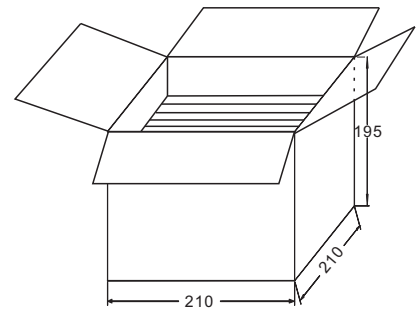
3,000 pcs per reel



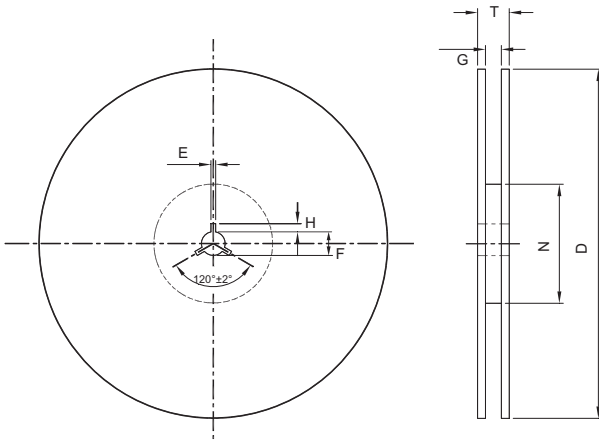
30,000 pcs per box
10 reels per box



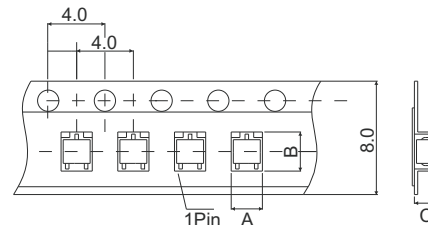
120,000 pcs per carton
4 boxes per carton



◆ Embossed tape and reel data



Reel (7")



Tape (8mm)

Symbol	Value (unit: mm)
A	3.15 ± 0.1
B	2.7 ± 0.1
C	1.25 ± 0.1
E	2 ± 0.5
F	13 ± 0.5
D	178 ± 2.0
G	8.4 ± 1.5
H	4 ± 0.5
N	60
T	< 14.9

单击下面可查看定价，库存，交付和生命周期等信息

[>>PJSEMI\(平晶微\)](#)