



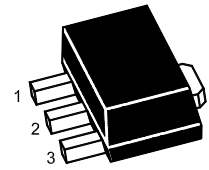
PJM03N10SQ

N-Channel MOSFET

Descriptions

- Fast Switching
- Low $R_{DS(ON)}$ and Gate Charge
- Low Reverse Transfer Capacitance
- Halogen and Antimony Free (HAF) Product is acquired

SOT-89



Mark: 0103M

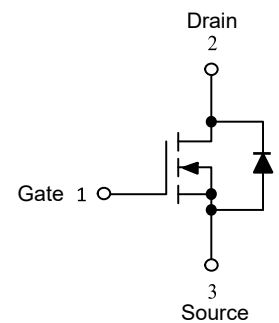
Features

- $V_{DS} = 100V$, $I_D = 3A$
- $R_{DS(ON)} < 140\text{ m}\Omega$ (@ $V_{GS}=10V$)
- MSL: 1 Level

Applications

- Load Switch
- PWM Applications

Schematic Diagram



Absolute Maximum Ratings

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

Parameter	Symbol	Value	Units
Drain-Source Voltage	V_{DSS}	100	V
Gate-Source Voltage	V_{GSS}	± 20	V
Continuous Drain Current	I_D	3	A
Pulsed Drain Current ¹	I_{DM}	20	A
Power Dissipation ¹	P_D	0.5	W
Junction and Storage Temperature Range	T_J, T_{STG}	150, -55 to 150	$^\circ\text{C}$
Maximum Junction-to-Ambient	$R_{\theta JA}$	250	$^\circ\text{C/W}$



Electrical Characteristics (T_A = 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Static Parameters						
Drain-Source Breakdown Voltage	BV _{DSS}	I _D =250μA, V _{GS} =0V	100	--	--	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =100V, V _{GS} =0V	--	--	1	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V	--	--	±100	nA
Gate Threshold Voltage ³	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	1	--	2	V
Static Drain-Source On-Resistance ³	R _{DS(on)}	V _{GS} =10V, I _D =5.0A	--	--	140	mΩ
Body Diode Forward Voltage ³	V _{SD}	I _S =3A, V _{GS} =0V	--	0.75	1.5	V
Dynamic Parameters ⁴						
Forward Transconductance	g _{FS}	V _{DS} =5V, I _D =2.9A	3		--	S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =25V, f=1MHz	--	690	--	pF
Output Capacitance	C _{oss}		--	120	--	pF
Reverse Transfer Capacitance	C _{rss}		--	90	--	pF
Switching Parameters						
Total Gate Charge	Q _g	V _{GS} =10V, V _{DS} =15V, I _D =4A	--	15.5	--	nC
Gate Source Charge	Q _{gs}		--	3.2	--	nC
Gate Drain Charge	Q _{gd}		--	4.7	--	nC
Turn-On DelayTime	t _{D(on)}	V _{GS} =10V, V _{DS} =30V, R _L =15Ω, R _{GEN} =2.5Ω	--	11	--	ns
Turn-On Rise Time	t _r		--	7.4	--	ns
Turn-Off DelayTime	t _{D(off)}		--	35	--	ns
Turn-Off Fall Time	t _f		--	9.1	--	ns

Notes :

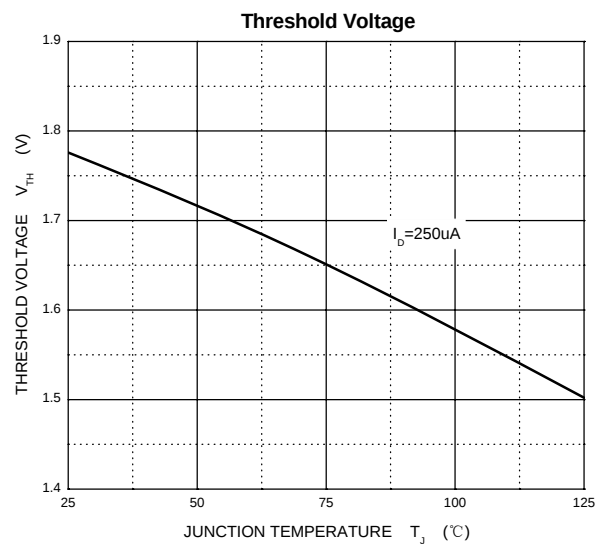
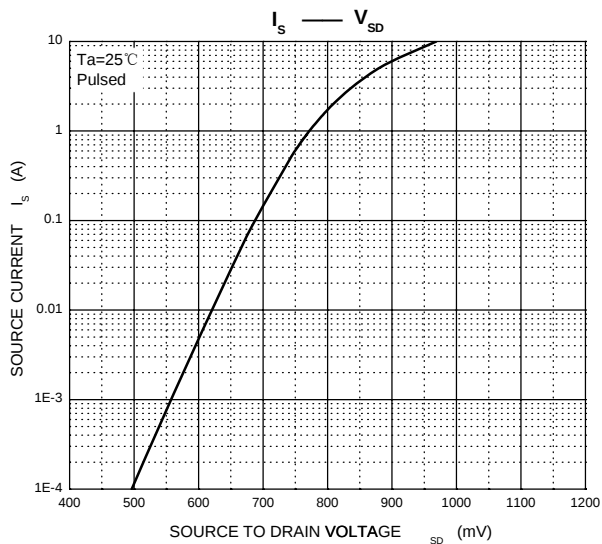
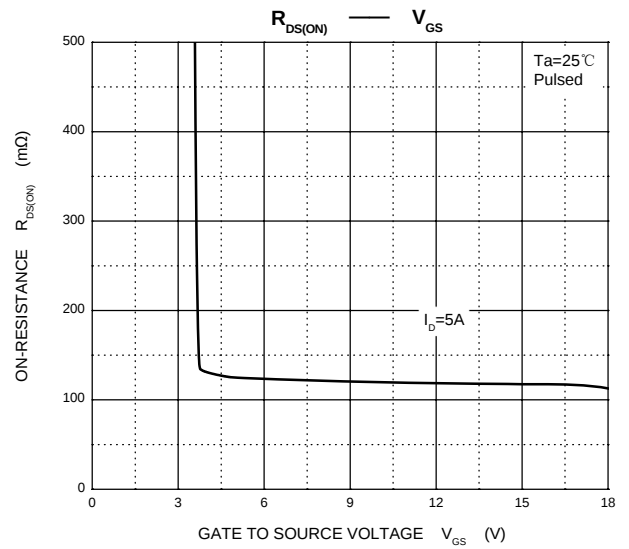
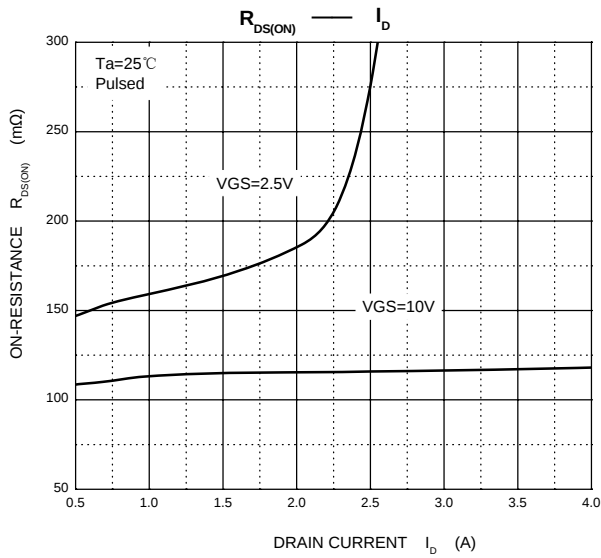
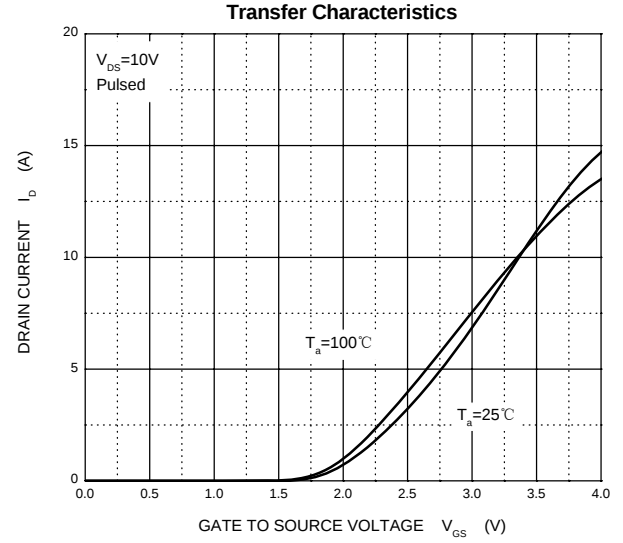
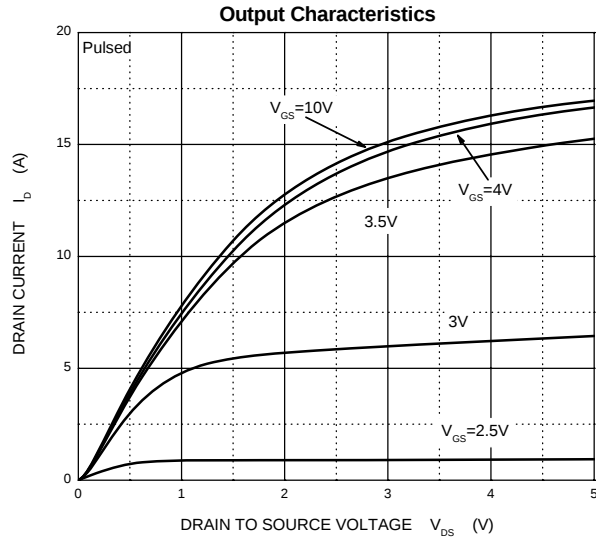
1. Repetitive rating : pulse width limited by junction temperature.
2. Surface mounted on FR4 board , t≤10s.
3. Pulse Test : pulse width≤300μs, duty cycle≤2%.
4. Guaranteed by design, not subject to producing.



PJM03N10SQ

N-Channel MOSFET

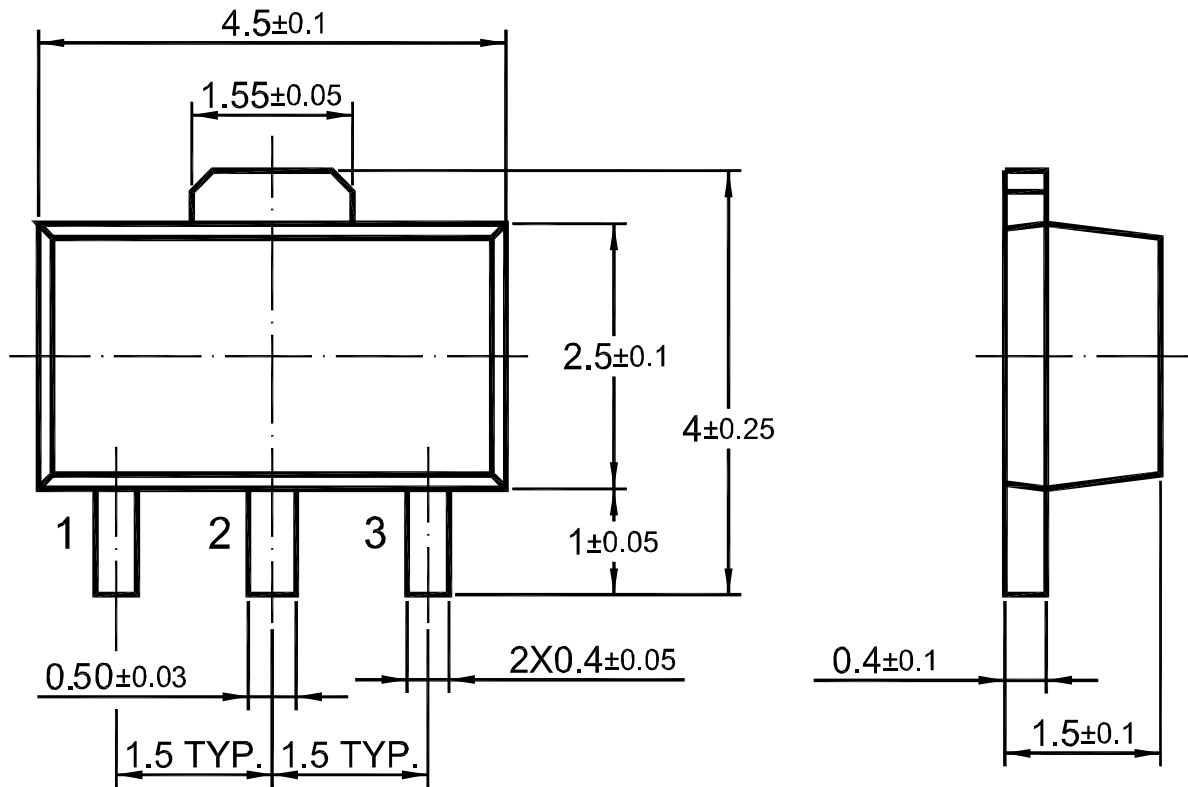
Electrical Characteristics Curves





Package Outline

SOT-89



Ordering Information

Device	Package	Shipping
PJM03N10SQ	SOT-89	1,000PCS/T&R (7 inch)

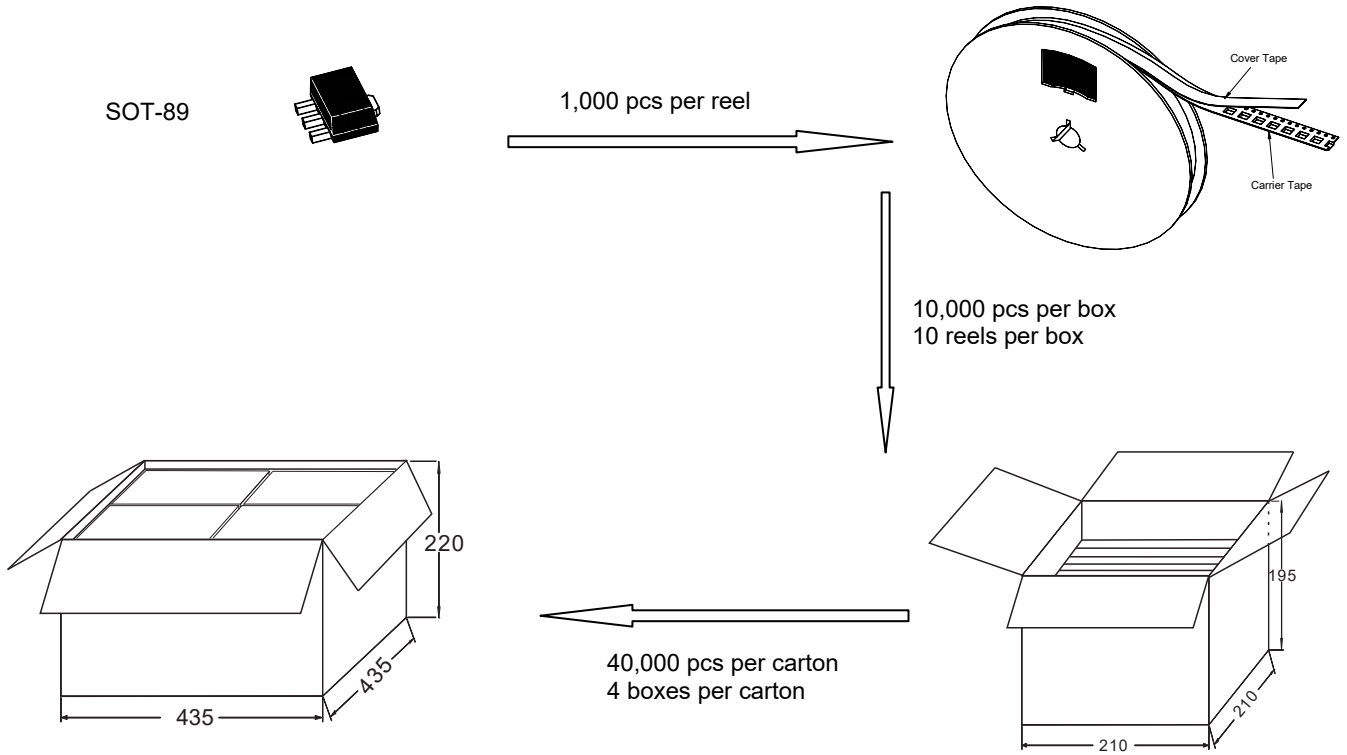


PJM03N10SQ

N-Channel MOSFET

Package Specifications unit: mm

◆ The method of packaging



◆ Embossed tape and reel data

