

2SJ399

Silicon P-Channel MOS FET

REJ03G0193-0200Z
(Previous ADE-208-267 (Z))
Rev.2.00
Apr.05.2004

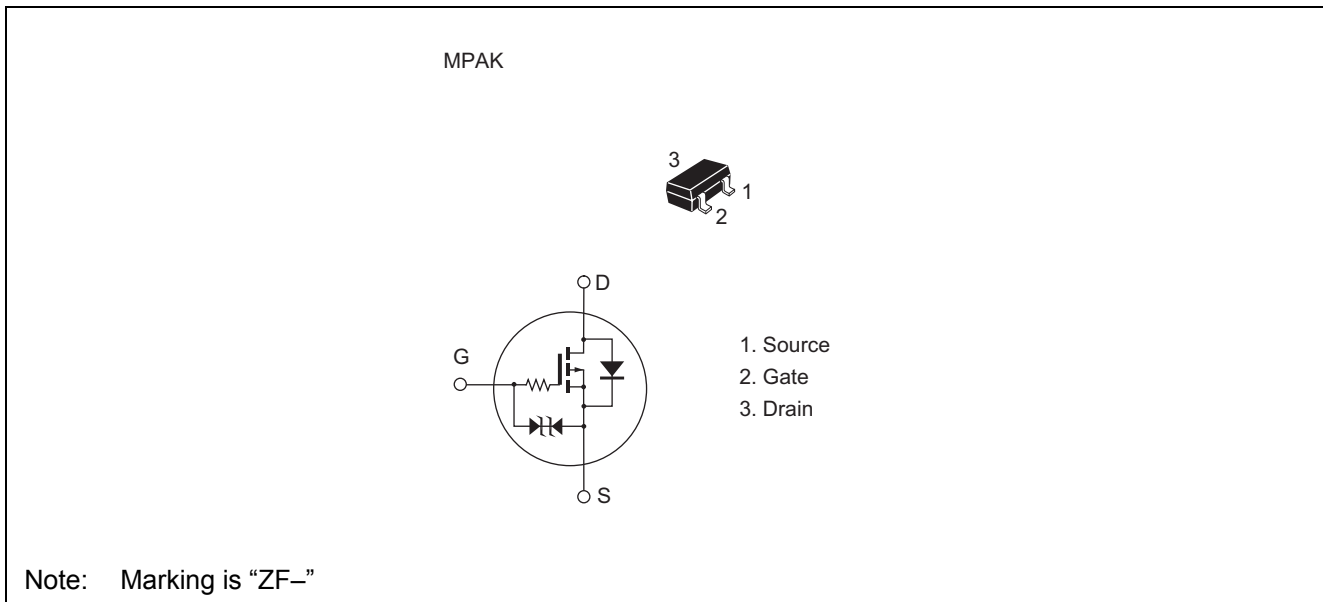
Application

Low frequency power switching

Features

- Low on-resistance
- Small package
- Low drive current
- 4 V gate drive device can be driven from 5 V source
- Suitable for low signal load switch.

Outline



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DSS}	-30	V
Gate to source voltage	V _{GSS}	±20	V
Drain current	I _D	-0.2	A
Drain peak current	I _{D(pulse)} ^{Note}	-0.4	A
Body to drain diode reverse drain current	I _{DR}	-0.2	A
Channel dissipation	P _{ch}	150	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note: PW ≤ 100 μs, duty cycle ≤ 10%

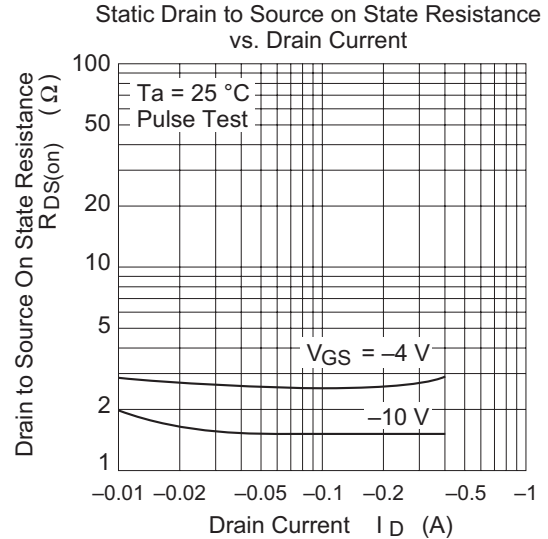
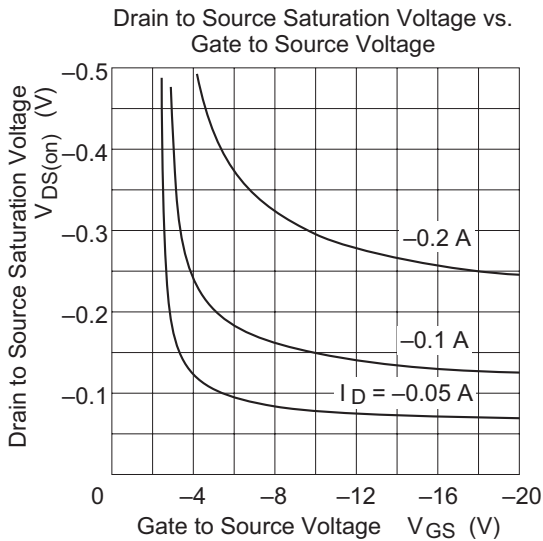
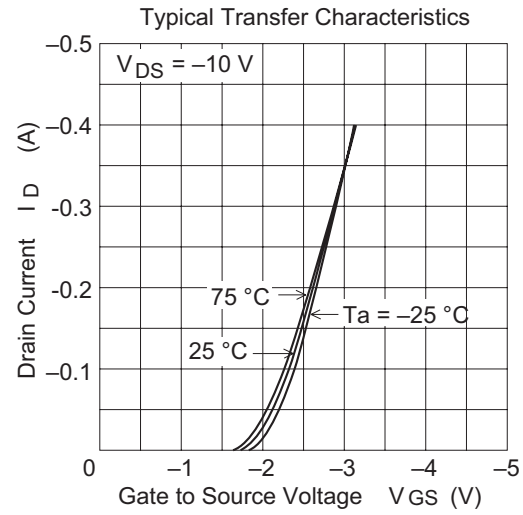
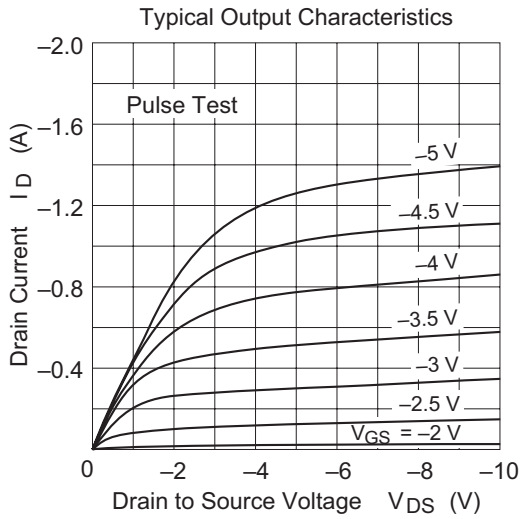
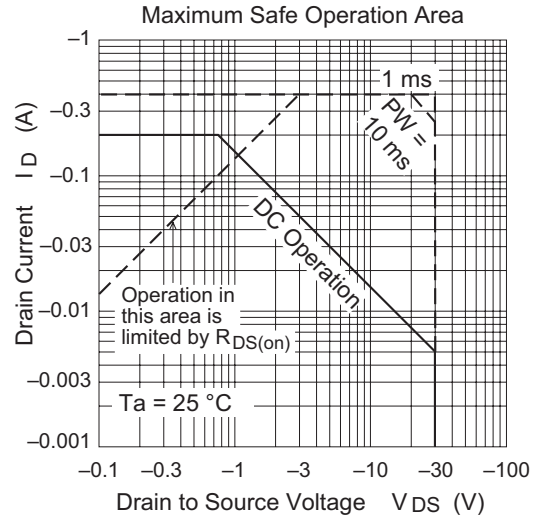
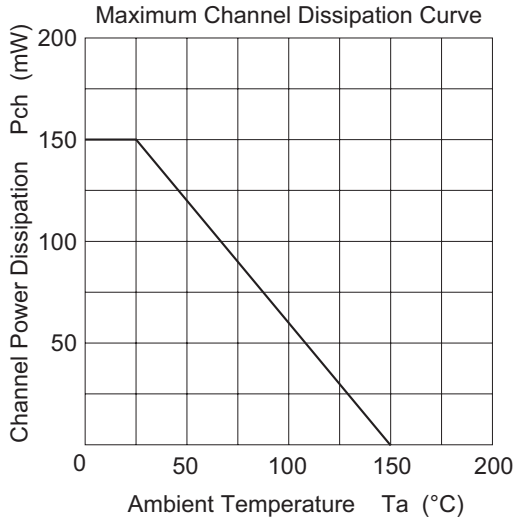
Electrical Characteristics

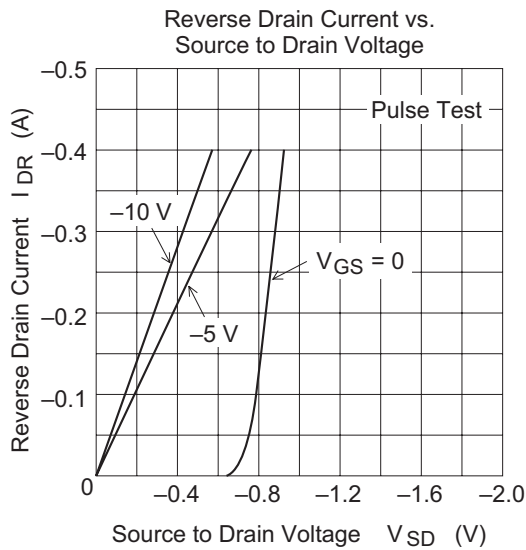
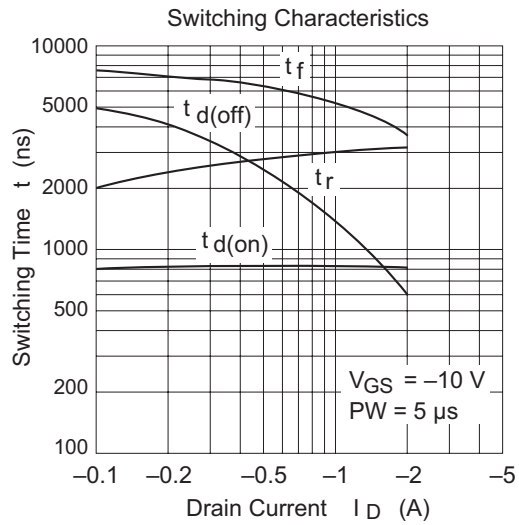
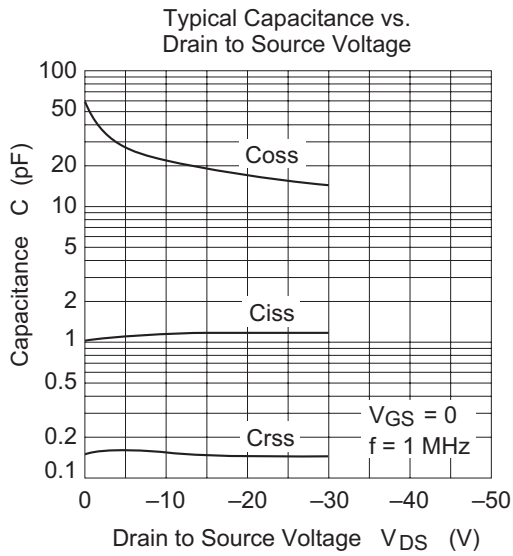
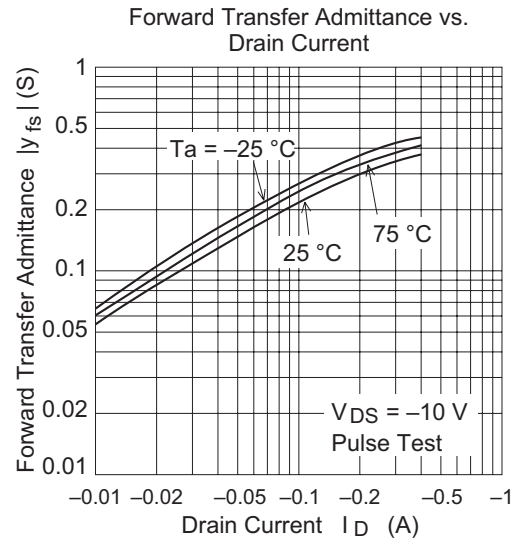
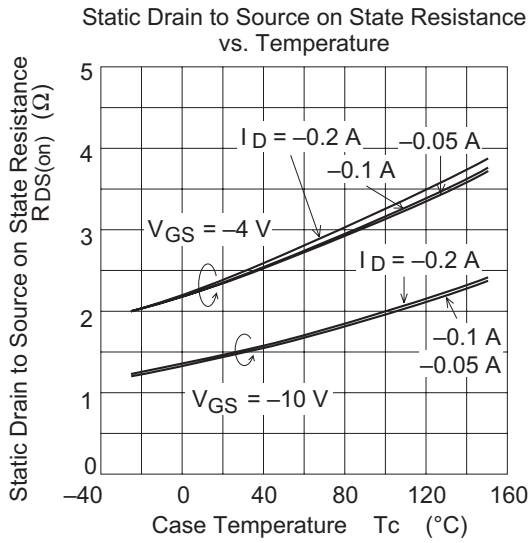
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	V _{(BR)DSS}	-30	—	—	V	I _D = -100 μA, V _{GS} = 0
Gate to source breakdown voltage	V _{(BR)GSS}	±20	—	—	V	I _G = ±100 μA, V _{DS} = 0
Gate to source leak current	I _{GSS}	—	—	±2	μA	V _{GS} = ±16 V, V _{DS} = 0
Zero gate voltage drain current	I _{DSS}	—	—	-1	μA	V _{DS} = -30 V, V _{GS} = 0
Gate to source cutoff voltage	V _{GS(off)}	-1.0	—	-2.0	V	I _D = -10 μA, V _{DS} = -5 V
Static drain to source on state resistance	R _{DS(on)}	—	2.7	7.5	Ω	I _D = -20 mA, V _{GS} = -4 V
		—	2.0	7.0	Ω	I _D = -10 mA, V _{GS} = -10 V
Input capacitance	C _{iss}	—	1.1	—	pF	V _{DS} = -10 V
Output capacitance	C _{oss}	—	22.3	—	pF	V _{GS} = 0
Reverse transfer capacitance	C _{rss}	—	0.17	—	pF	f = 1 MHz
Turn-on delay time	t _{d(on)}	—	530	—	ns	I _D = -0.1 A
Rise time	t _r	—	2170	—	ns	V _{GS} = -10 V
Turn-off delay time	t _{d(off)}	—	7640	—	ns	R _L = 100 Ω
Fall time	t _f	—	7690	—	ns	PW = 5 μs

Note: Pulse Test

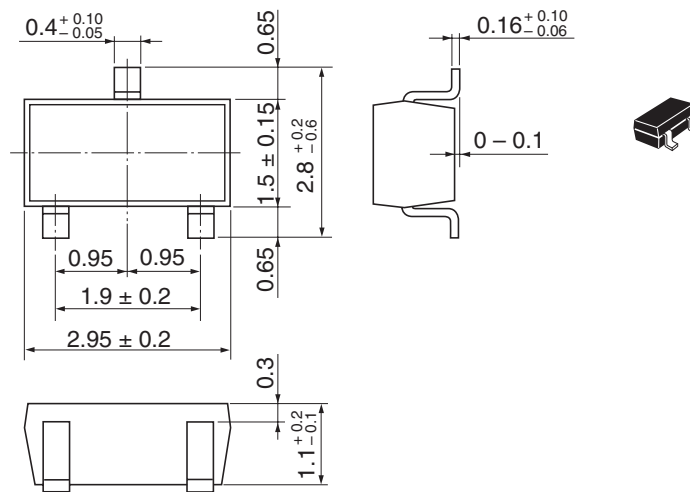
Main Characteristics





Package Dimensions

As of January, 2003
Unit: mm



Package Code	MPAK(T)
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.011 g

Ordering Information

Part Name	Quantity	Shipping Container
2SJ399	3000 pcs	ϕ 178 mm Taping Reel (TL)

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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