

# 2SJ574

Silicon P Channel MOS FET  
High Speed Switching

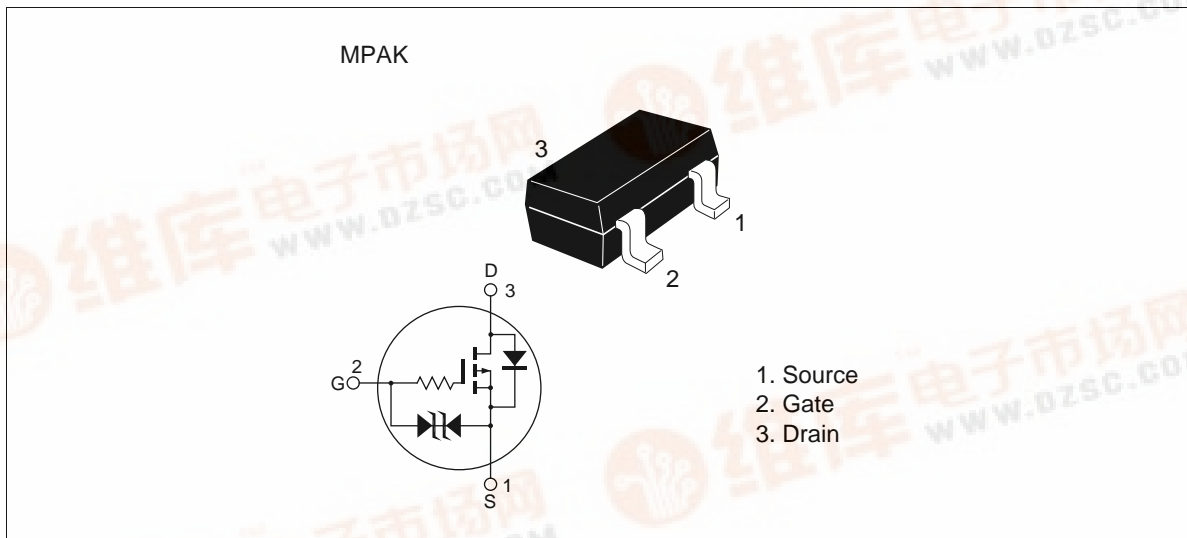
# HITACHI

ADE-208-739B (Z)  
3rd.Edition.  
June 1999

## Features

- Low on-resistance  
 $R_{DS} = 1.1 \Omega$  typ. ( $V_{GS} = -10 V$ ,  $I_D = -150 mA$ )  
 $R_{DS} = 2.2 \Omega$  typ. ( $V_{GS} = -4 V$ ,  $I_D = -150 mA$ )
- 4 V gate drive device.
- Small package (MPAK)

## Outline



## 2SJ574

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V <sub>DSS</sub>	-30	V
Gate to source voltage	V <sub>GSS</sub>	±20	V
Drain current	I <sub>D</sub>	-300	mA
Drain peak current	I <sub>D(pulse)</sub> <sup>Note 1</sup>	-1.2	A
Body-drain diode reverse drain current	I <sub>DR</sub>	-300	mA
Channel dissipation	Pch <sup>Note 2</sup>	400	mW
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

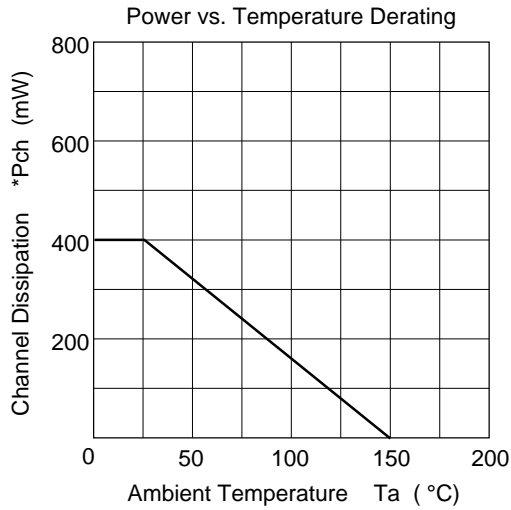
Note: 1. PW ≤ 10 μs, duty cycle ≤ 1%  
2. Value on the alumina ceramic board (12.5x20x0.7mm)

### Electrical Characteristics (Ta = 25°C)

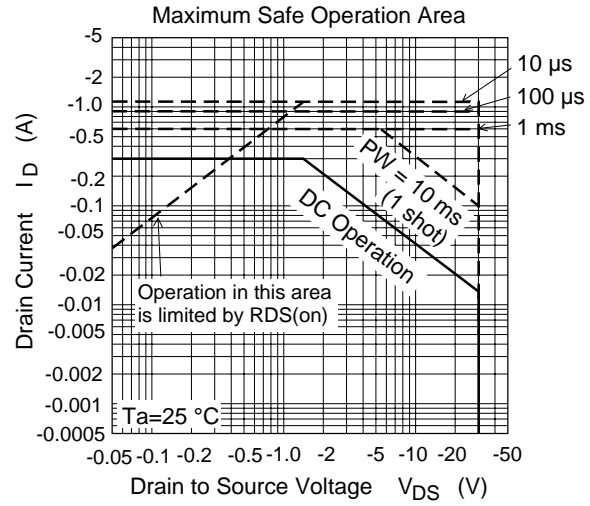
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	V <sub>(BR)DSS</sub>	-30	—	—	V	I <sub>D</sub> = -100 μA, V <sub>GS</sub> = 0
Gate to source breakdown voltage	V <sub>(BR)GSS</sub>	±20	—	—	V	I <sub>G</sub> = ±100 μA, V <sub>DS</sub> = 0
Gate to source leak current	I <sub>GSS</sub>	—	—	±5	μA	V <sub>GS</sub> = ±16 V, V <sub>DS</sub> = 0
Zero gate voltage drain current	I <sub>DSS</sub>	—	—	-1	μA	V <sub>DS</sub> = -30 V, V <sub>GS</sub> = 0
Gate to source cutoff voltage	V <sub>GS(off)</sub>	-1.3	—	-2.3	V	I <sub>D</sub> = -10 μA, V <sub>DS</sub> = -5 V
Static drain to source on state resistance	R <sub>DS(on)</sub>	—	1.1	1.3	Ω	I <sub>D</sub> = -150 mA, V <sub>GS</sub> = -10 V <sup>Note 3</sup>
	R <sub>DS(on)</sub>	—	2.2	3.1	Ω	I <sub>D</sub> = -150 mA, V <sub>GS</sub> = -4 V <sup>Note 3</sup>
Forward transfer admittance	y <sub>fs</sub>	195	300	—	mS	I <sub>D</sub> = -150 mA, V <sub>DS</sub> = -10 V <sup>Note 3</sup>
Input capacitance	Ciss	—	50	—	pF	V <sub>DS</sub> = -10 V
Output capacitance	Coss	—	40	—	pF	V <sub>GS</sub> = 0
Reverse transfer capacitance	Crss	—	15	—	pF	f = 1 MHz
Turn-on delay time	t <sub>d(on)</sub>	—	20	—	ns	I <sub>D</sub> = -150 mA, V <sub>GS</sub> = -10 V
Rise time	t <sub>r</sub>	—	50	—	ns	R <sub>L</sub> = 66.6 Ω
Turn-off delay time	t <sub>d(off)</sub>	—	110	—	ns	
Fall time	t <sub>f</sub>	—	105	—	ns	

Note: 3. Pulse test  
4. Marking is BP

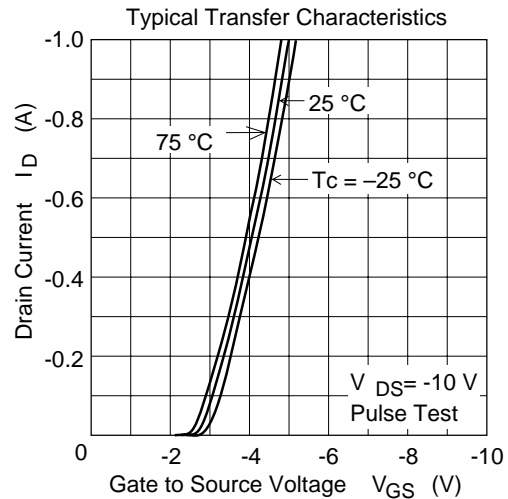
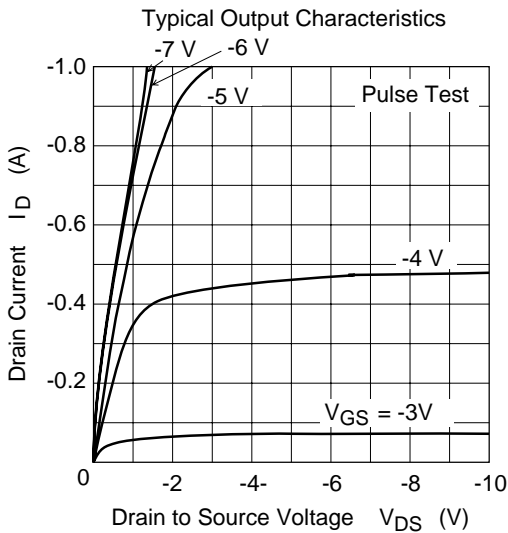
Main Characteristics



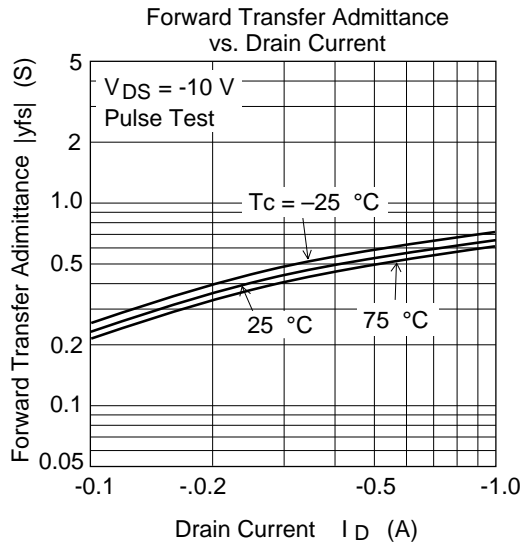
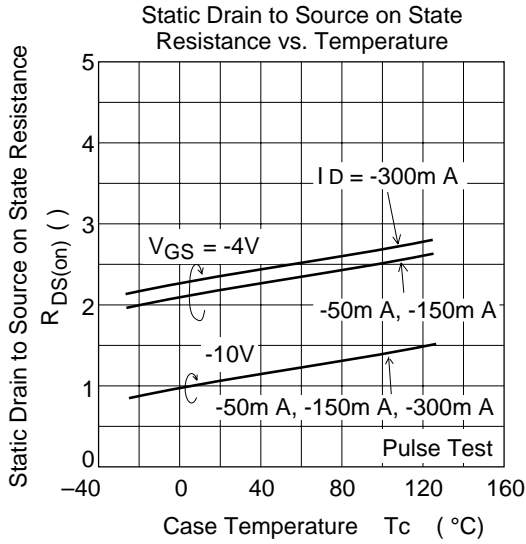
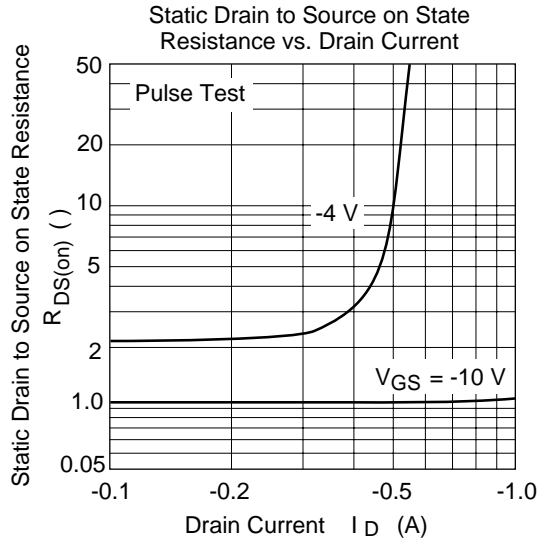
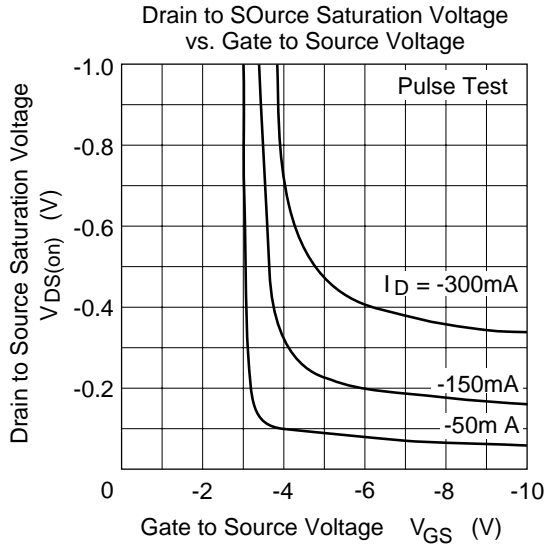
\*Value on the alumina ceramic board.(12.5x20x0.7mm)

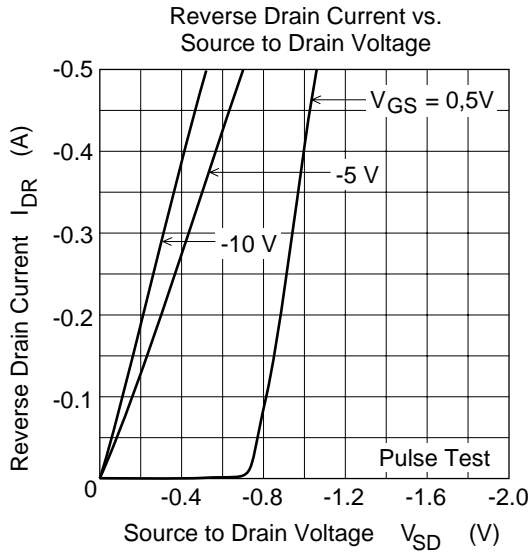
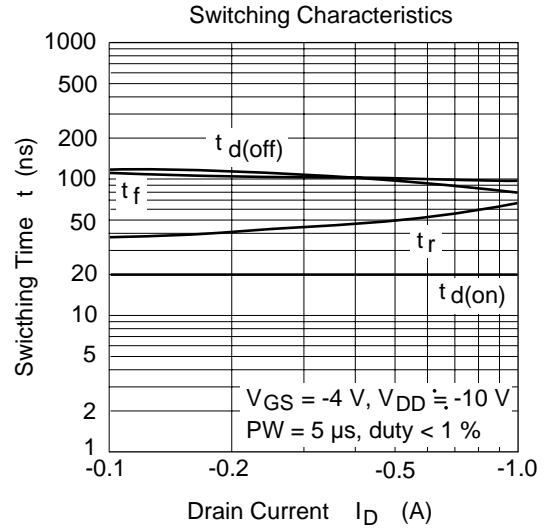
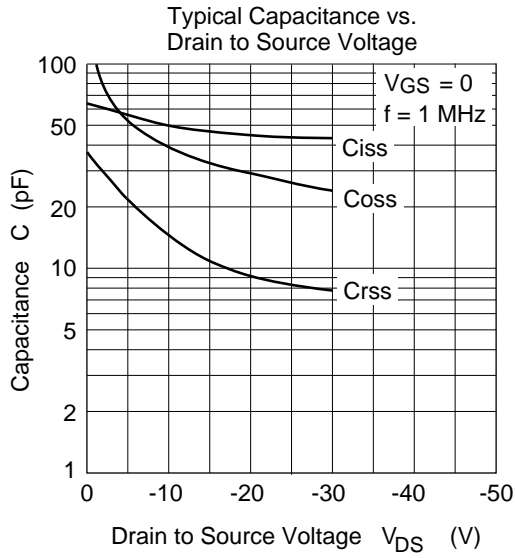


Value on the alumina ceramic board.(12.5x20x0.7mm)

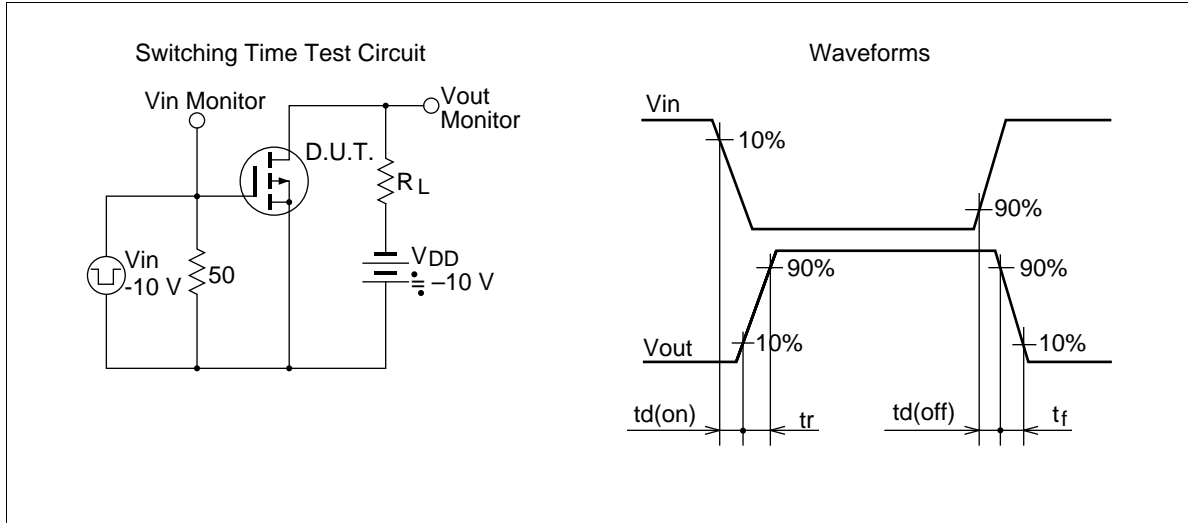


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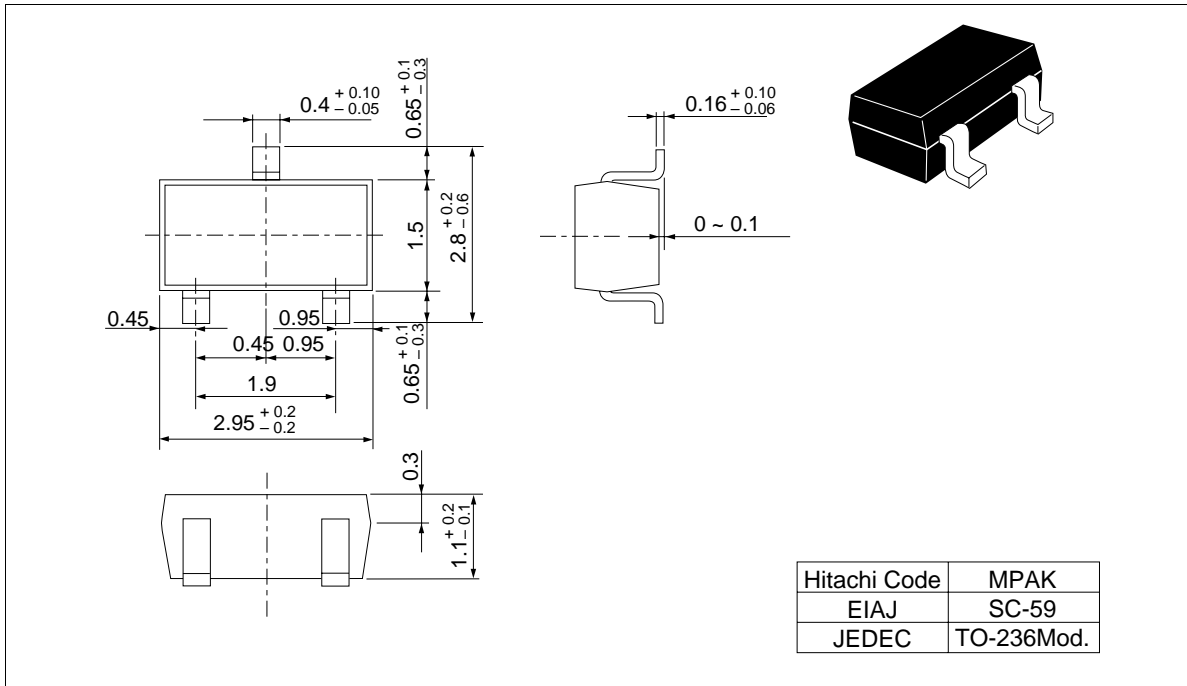


## 2SJ574



Package Dimensions

Unit: mm



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