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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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2SJ576

Silicon P Channel MOS FET
High Speed Switching

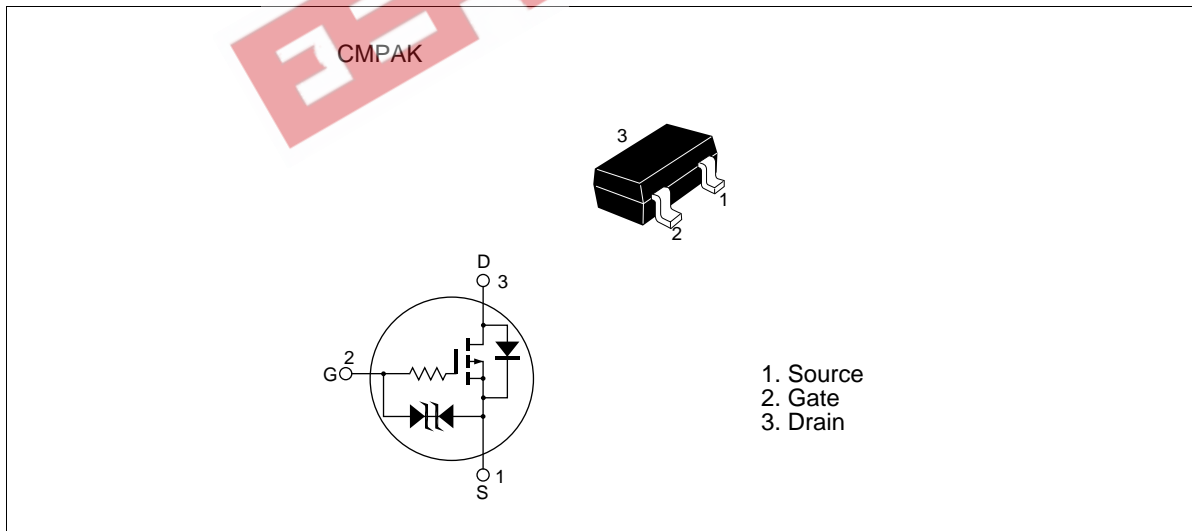
RENESAS

ADE-208-741B (Z)
3rd.Edition.
June 1999

Features

- Low on-resistance
 $R_{DS} = 2.8 \Omega$ typ. ($V_{GS} = -10 \text{ V}$, $I_D = -50 \text{ mA}$)
 $R_{DS} = 5.7 \Omega$ typ. ($V_{GS} = -4 \text{ V}$, $I_D = -50 \text{ mA}$)
- 4 V gate drive device.
- Small package (CMPAK)

Outline



2SJ576

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	-100	mA
Drain peak current	$I_{D(pulse)}$ ^{Note 1}	-400	mA
Body-drain diode reverse drain current	I_{DR}	-100	mA
Channel dissipation	P_{ch} ^{Note 2}	300	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

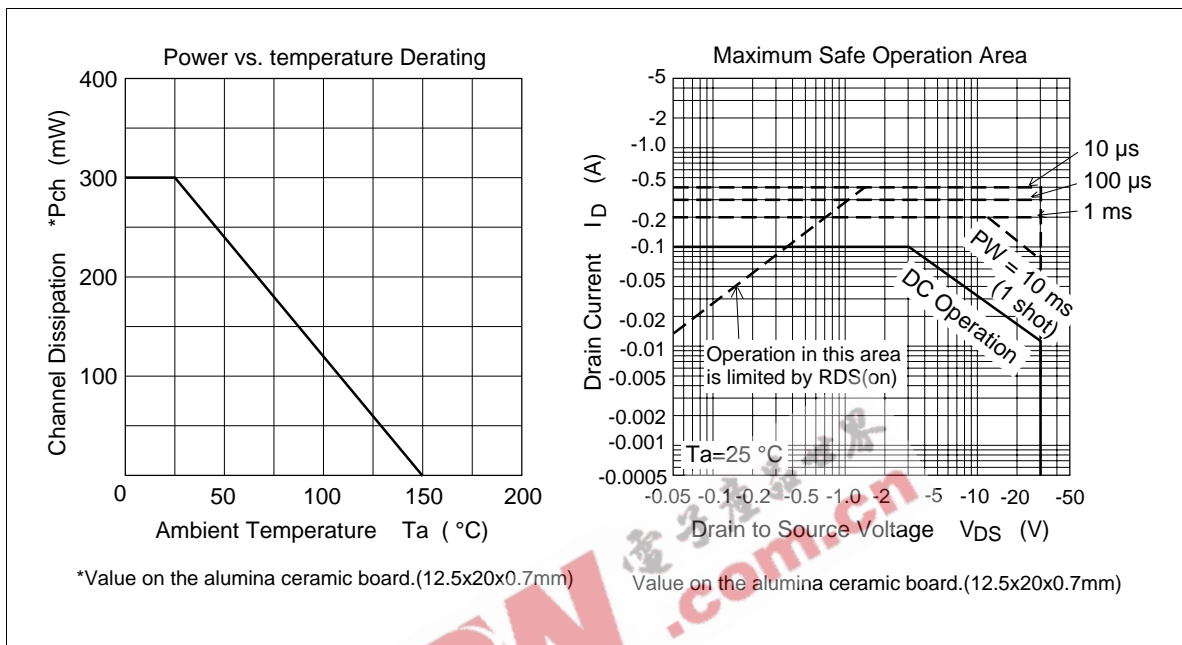
Note: 1. $PW \leq 10 \mu s$, duty cycle $\leq 1\%$
 2. Value on the alumina ceramic board (12.5x20x0.7 mm)

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	$V_{(BR)DSS}$	-30	—	—	V	$I_D = -100 \mu A, V_{GS} = 0$
Gate to source breakdown voltage	$V_{(BR)GSS}$	± 20	—	—	V	$I_G = \pm 100 \mu A, V_{DS} = 0$
Gate to source leak current	I_{GSS}	—	—	± 5	μA	$V_{GS} = \pm 16 V, V_{DS} = 0$
Zero gate voltage drain current	I_{DSS}	—	—	-1	μA	$V_{DS} = -30 V, V_{GS} = 0$
Gate to source cutoff voltage	$V_{GS(off)}$	-1.3	—	-2.3	V	$I_D = -10 \mu A, V_{DS} = -5 V$
Static drain to source on state resistance	$R_{DS(on)}$	—	2.8	3.3	Ω	$I_D = -50 mA, V_{GS} = -10 V$ ^{Note 3}
	$R_{DS(on)}$	—	5.7	7.9	Ω	$I_D = -50 mA, V_{GS} = -4 V$ ^{Note 3}
Forward transfer admittance	$ y_{fs} $	68	105	—	mS	$I_D = -50 mA, V_{DS} = -10 V$ ^{Note 3}
Input capacitance	C_{iss}	—	25	—	pF	$V_{DS} = -10 V$
Output capacitance	C_{oss}	—	20	—	pF	$V_{GS} = 0$
Reverse transfer capacitance	C_{rss}	—	8	—	pF	$f = 1 MHz$
Turn-on delay time	$t_{d(on)}$	—	10	—	ns	$I_D = -50 mA, V_{GS} = -10 V$
Rise time	t_r	—	15	—	ns	$R_L = 200 \Omega$
Turn-off delay time	$t_{d(off)}$	—	40	—	ns	
Fall time	t_f	—	45	—	ns	

Note: 3. Pulse test
 4. Marking is AP
 See characteristics curves of 2SJ575

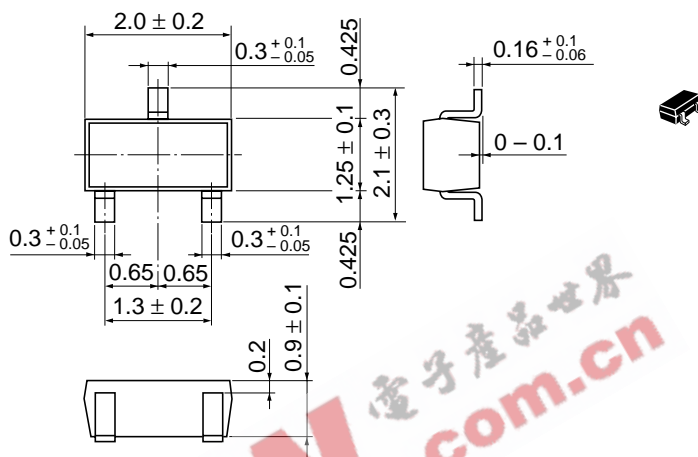
Main Characteristics



2SJ576

Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	CMPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.006 g

Cautions

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