2SK3289

Silicon N Channel MOS FET
High Speed Switching

HITACHI

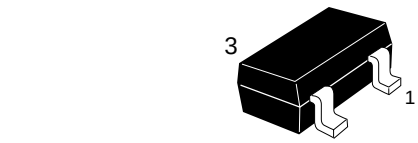
ADE-208-743B(Z)
Target Specification 3rd.Edition.
December 1998

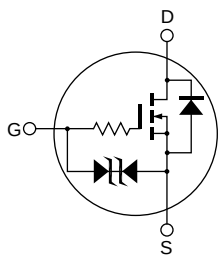
Features

- Low on-resistance
  R_{DS} = 1.26Ω typ. (at V_{GS} =10V , I_D =150mA)
  R_{DS} = 2.8Ω typ. (at V_{GS} =4V , I_D =50mA)
- 4V gate drive device
- Small package (CMPAK)

Outline

CMPAK





1. Source
2. Gate
3. Drain

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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	300	mA
Drain peak current	$I_{D(pulse)}$ Note1	1.2	A
Body-drain diode reverse drain current	I_{DR}	300	mA
Channel dissipation	Pch Note 2	400	mW
Channel temperature	Tch	150	°C
Storage temperature	Tstg	–55 to +150	°C

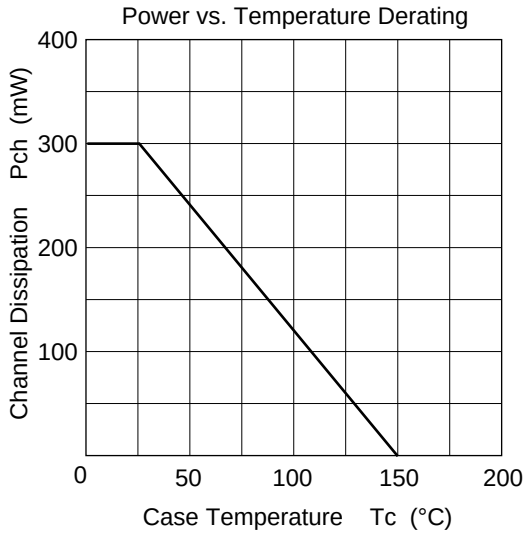
Note: 1. PW ≤ 10µs, duty cycle ≤ 1 %
2. Value on the alumina ceramic board (12.5x20x0.7mm)

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	$V_{(BR)DSS}$	30	—	—	V	I_D = 100µA, V_{GS} = 0
Gate to source breakdown voltage	$V_{(BR)GSS}$	±20	—	—	V	I_G = ±100µA, V_{DS} = 0
Gate to source leak current	I_{GSS}	—	—	±5	µA	V_{GS} = ±16V, V_{DS} = 0
Zero gate voltege 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 = 10µA, V_{DS} = 5V
Static drain to source on state resistance	$R_{DS(on)}$	—	1.26	1.44	Ω	I_D = 150mA,V_{GS} = 10V Note 3
	$R_{DS(on)}$	—	2.8	3.44	Ω	I_D = 50mA,V_{GS} = 4V Note 3
Forward transfer admittance	$\|y_{fs}\|$	145	220	—	mS	I_D = 150mA, V_{DS} = 10V Note 3
Input capacitance	Ciss	—	4	—	pF	V_{DS} = 10V
Output capacitance	Coss	—	15	—	pF	V_{GS} = 0
Reverse transfer capacitance	Crss	—	2	—	pF	f = 1MHz
Turn-on delay time	$t_{d(on)}$	—	200	—	ns	I_D = 150mA, V_{GS} = 10V
Rise time	t_r	—	600	—	ns	R_L = 66.6Ω
Turn-off delay time	$t_{d(off)}$	—	1100	—	ns	
Fall time	t_f	—	1100	—	ns	

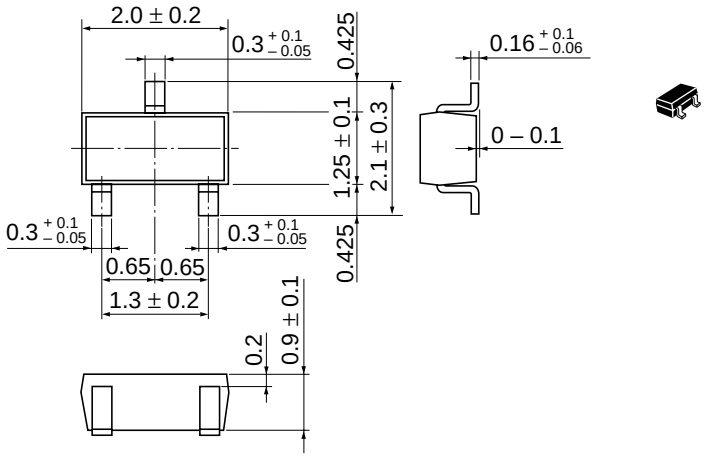
Note: 3. Pulse test
4. Marking is “ AN ”

Main Characteristics



Package Dimensions

As of January, 2001
Unit: mm



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

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HITACHI

Hitachi, Ltd.
Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL
NorthAmerica : http://semiconductor.hitachi.com/
Europe : http://www.hitachi-eu.com/hel/ecg
Asia : http://sicapac.hitachi-asia.com
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For further information write to:

Hitachi Semiconductor
(America) Inc.
179 East Tasman Drive,
San Jose,CA 95134
Tel: <1> (408) 433-1990
Fax: <1>(408) 433-0223

Hitachi Europe GmbH
Electronic Components Group
Dornacher Straβe 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 585160

Hitachi Asia Ltd.
Hitachi Tower
16 Collyer Quay #20-00,
Singapore 049318
Tel : <65>-538-6533/538-8577
Fax : <65>-538-6933/538-3877
URL : http://www.hitachi.com.sg

Hitachi Asia Ltd.
(Taipei Branch Office)
4/F, No. 167, Tun Hwa North Road,
Hung-Kuo Building,
Taipei (105), Taiwan
Tel : <886>-(2)-2718-3666
Fax : <886>-(2)-2718-8180
Telex : 23222 HAS-TP
URL : http://www.hitachi.com.tw

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower,
World Finance Centre,
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon,
Hong Kong
Tel : <852>-(2)-735-9218
Fax : <852>-(2)-730-0281
URL : http://www.hitachi.com.hk

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