MOS FET

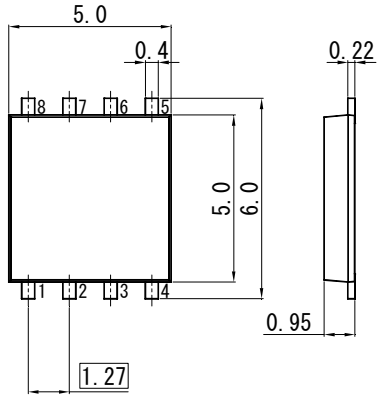
Panasonic

MTM981400BBF

MTM981400BBF

Silicon P-channel MOSFET

For switching



1. Source
2. Source
3. Source
4. Gate
5. Drain
6. Drain
7. Drain
8. Drain

Panasonic	SO8-F1-B
JEITA	SC-111AA
Code	—

■ Features

- Low drain-source On-state Resistance
  RDS(on) typ = 28 mΩ (VGS = -4.5 V)
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol BA

■ Packaging

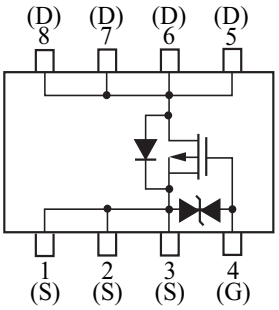
Embossed type (Thermo-compression sealing) 3 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Drain-source Voltage	VDS	-40	V
Gate-source Voltage	VGS	±20	V
Drain Current	ID	-7.0	A
Drain Current (Pulsed)	IDp	-28	A
Total Power dissipation *1	PD	2	W
Channel Temperature	Tch	150	°C
Operating Ambient Temperature	Topr	-40 to + 85	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Note: *1 Measuring on ceramic board at 50 mm × 50 mm × 1.0 mm.

Internal Connection



Pin Name

1. Source
2. Source
3. Source
4. Gate
5. Drain
6. Drain
7. Drain
8. Drain

Established : 2007-11-08
Revised : 2013-10-15

■ Electrical Characteristics Ta = 25°C ± 3°C

Static Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source Breakdown Voltage	VDSS	ID = -1 mA, VGS = 0 V	-40			V
Zero Gate Voltage Drain Current	IDSS	VDS = -40 V, VGS = 0 V			-10	μA
Gate-source Leakage Current	IGSS	VGS = ±16 V, VDS = 0 V			±10	μA
Gate-source threshold Voltage	Vth	ID = -1.0 mA, VDS = -10.0 V	-1		-2.5	V
Drain-source On-state Resistance *1	RDS(on)1	ID = -7.0 A, VGS = -10 V		19	25	mΩ
	RDS(on)2	ID = -3.5 A, VGS = -4.5 V		28	45	
Forward transfer admittance *1	|Yfs|	ID = -7.0 A, VDS = -10 V	10			S
Input Capacitance	Ciss	VDS = -10 V, VGS = 0 V, f = 1 MHz		2 700		pF
Output Capacitance	Coss			190		
Reverse Transfer Capacitance	Crss			175		
Turn-on Delay Time *1,*2	td(on)	VDD = -25 V, VGS = 0 V to -10 V		18		ns
Rise Time *1,*2	tr	ID = -3.5 A		15		
Turn-off Delay Time *1,*2	td(off)	VDD = -25 V, VGS = -10 V to 0 V		230		ns
Fall Time *1,*2	tf	ID = -3.5 A		70		

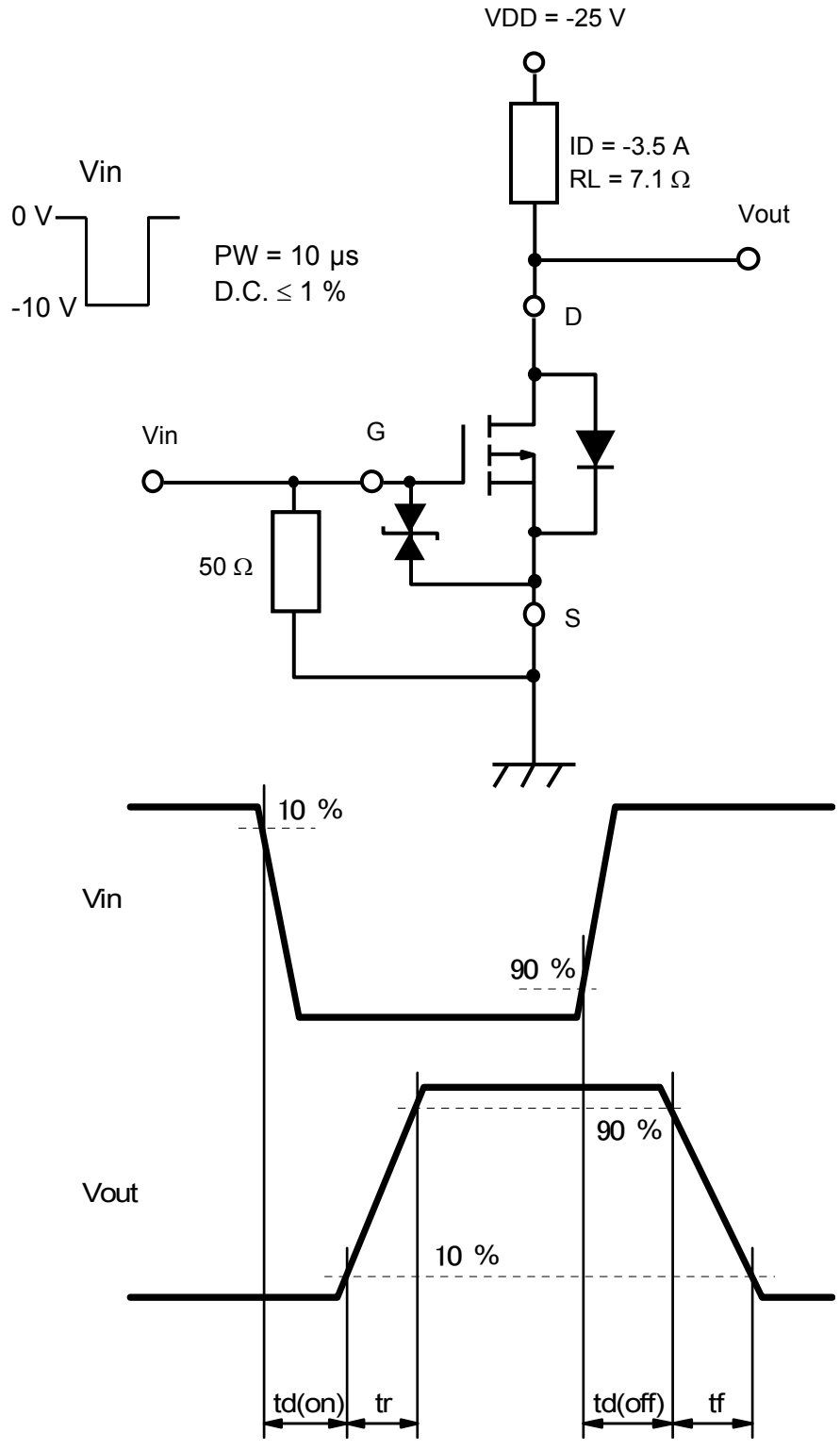
Note: 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

2. *1 Pulse test

*2 Measurement circuit for Turn-on Delay Time/Rise Time/Turn-off Delay Time/Fall Time

Established : 2007-11-08
Revised : 2013-10-15

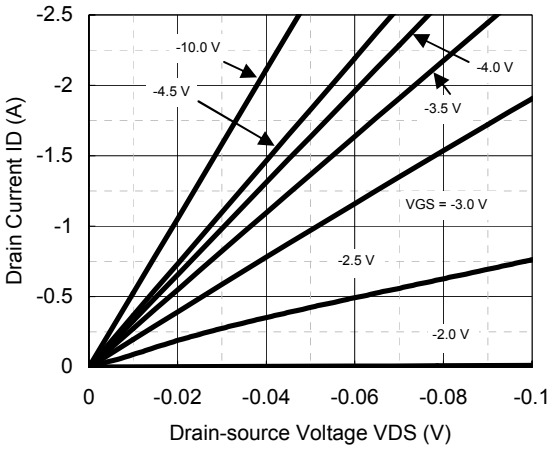
*2 Measurement circuit for Turn-on Delay Time/Rise Time/Turn-off Delay Time/Fall Time



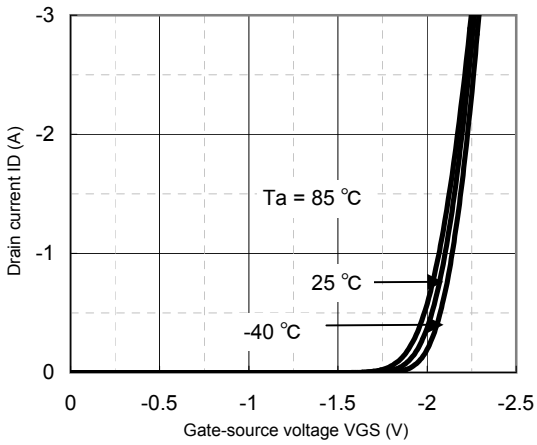
Established : 2007-11-08
Revised : 2013-10-15

Technical Data (reference)

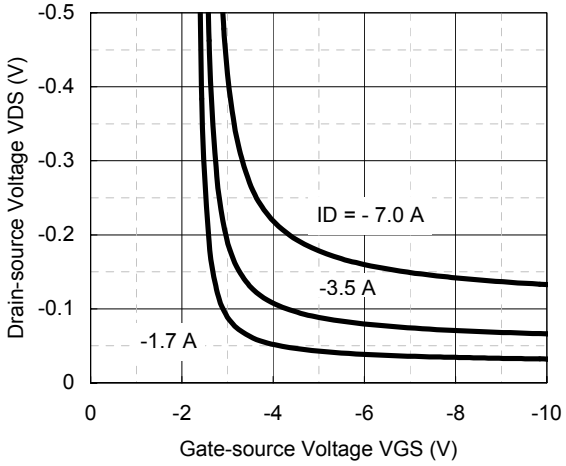
ID - VDS



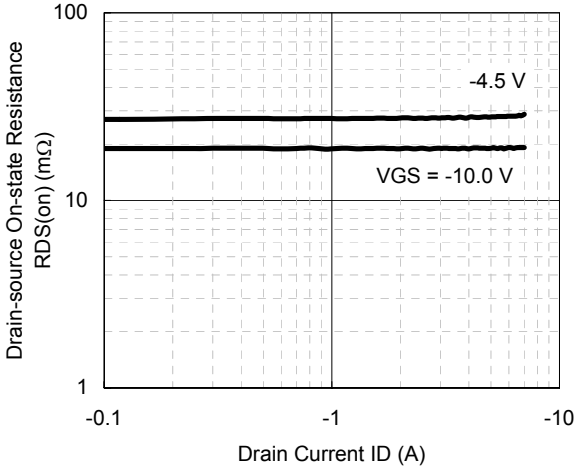
ID - VGS



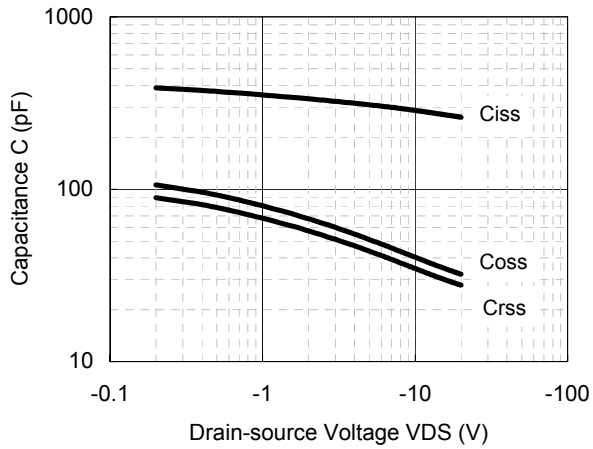
VDS - VGS



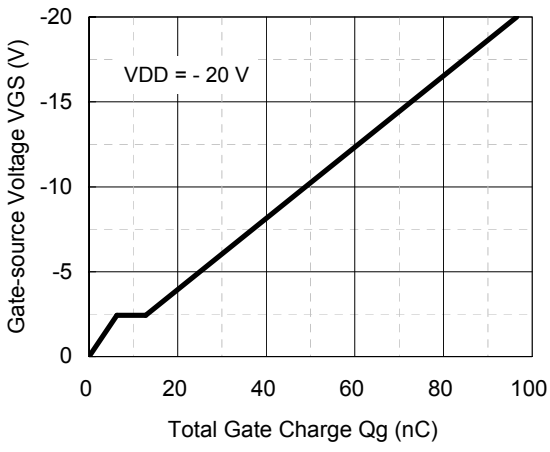
RDS(on) - ID



Capacitance - VDS



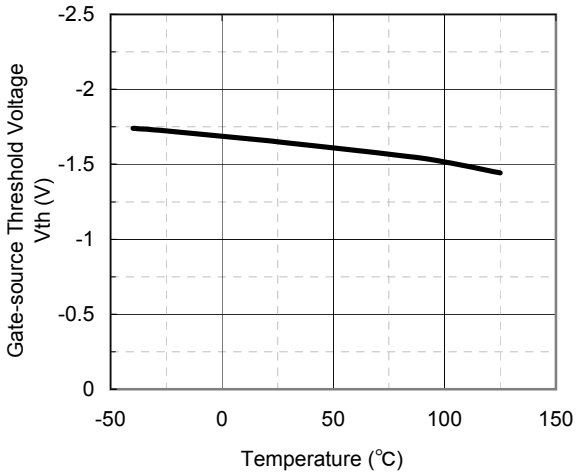
Dynamic Input/Output Characteristics



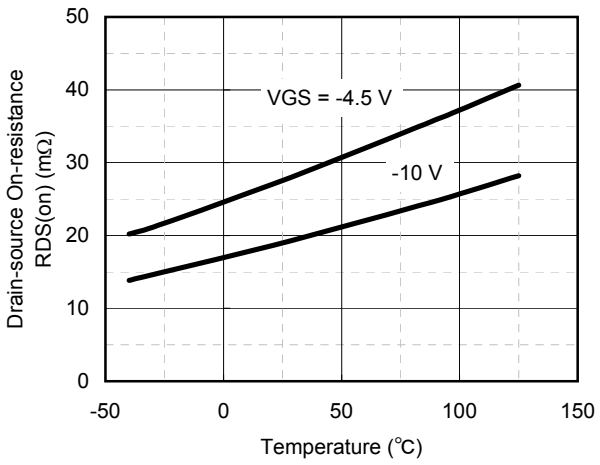
Established : 2007-11-08
Revised : 2013-10-15

Technical Data (reference)

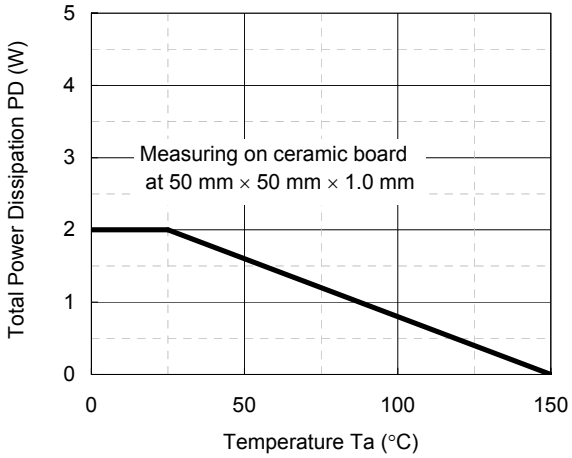
Vth - Ta



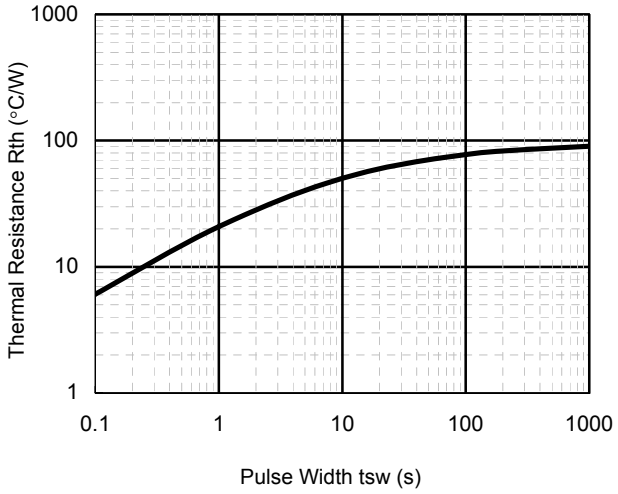
RDS(on) - Ta



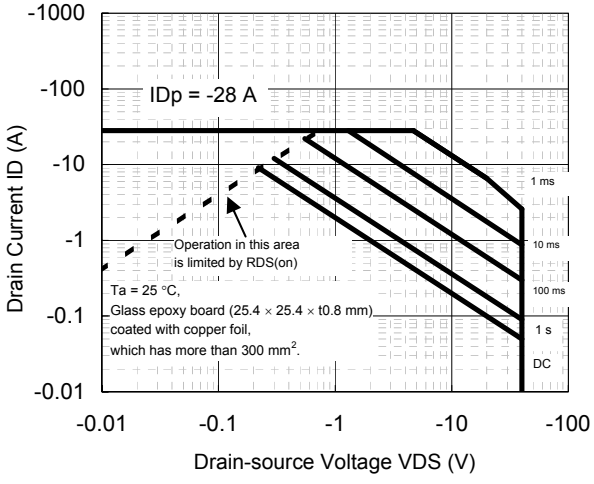
PD - Ta



Rth - tsw



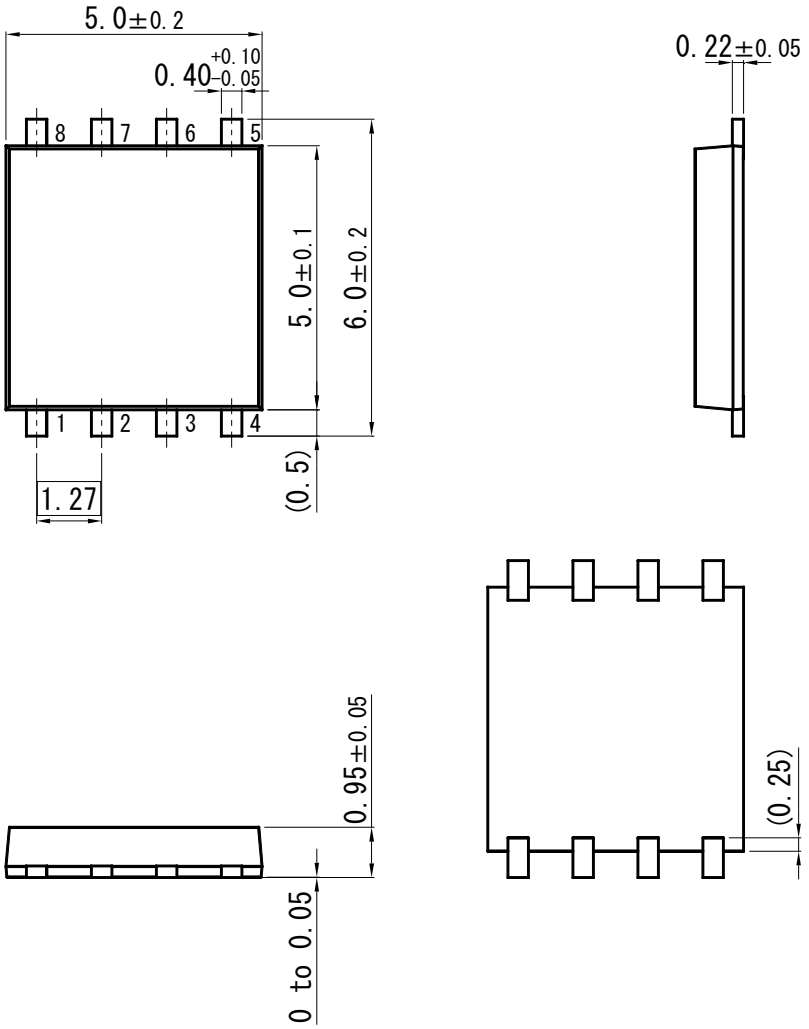
Safe Operating Area



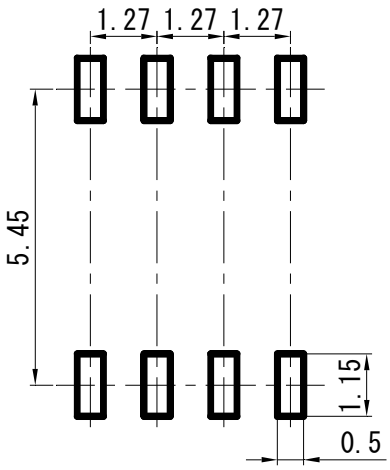
Established : 2007-11-08
Revised : 2013-10-15

SO8-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



Established : 2007-11-08
Revised : 2013-10-15

utions in using the technical information and scribed in this book

s book is to be exported or provided to non-residents, the laws and rd to security export control, must be observed.

ly to show the main characteristics and application circuit examples property right or other right owned by Panasonic Corporation or any company as to the infringement upon any such right owned by any l information described in this book.

or general applications (such as office equipment, communications r for specific applications as expressly stated in this book.
ng applications:
tive equipment, traffic signaling equipment, combustion equipment, quality and reliability are required, or if the failure or malfunction of ody.
nsible for any damage incurred as a result of or in connection with pplication, unless our company agrees to your using the products in

k are subject to change without notice for modification and/or im- use of the products, therefore, ask for the most up-to-date Product satisfy your requirements.

absolute maximum rating and the guaranteed operating conditions .). Especially, please be careful not to exceed the range of absolute r-off and mode-switching. Otherwise, we will not be liable for any

take into the consideration of incidence of break down and failure n the systems such as redundant design, arresting the spread of fire cal injury, fire, social damages, for example, by using the products.

own and characteristics change due to external factors (ESD, EOS, mounting or at customer's process. When using products for which helf life and the elapsed time since first opening the packages.

partially, without the prior written permission of our company.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View MTM981400BBF on WIN SOURCE
- Panasonic Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management