MOS FET

Panasonic

MTM982400BBF

MTM982400BBF

Silicon N-channel MOSFET

For switching

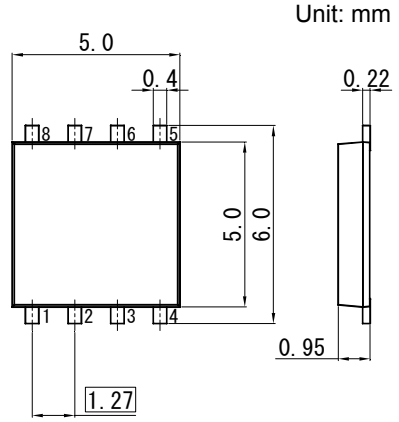
■ Features

- Low drain-source On-state Resistance
  RDS(on) typ = 29 mΩ (VGS = 5.0 V)
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: CA

■ Packaging

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



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

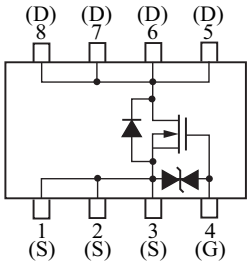
Panasonic	SO8-F1-B
JEITA	SC-111AA
Code	—

■ 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	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 : 2007-12-18
Revised : 2013-09-10

■ 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	1.0		2.5	V
Drain-source On-state Resistance *1	RDS(on)1	ID = 7 A, VGS = 10 V		16	23	mΩ
	RDS(on)2	ID = 3.5 A, VGS = 5.0 V		29	40	
Forward transfer admittance *1	|Yfs|	ID = 7 A, VDS = 10 V	4.0			S
Input Capacitance	Ciss	VDS = 10 V, VGS = 0 V, f = 1 MHz		1 750		pF
Output Capacitance	Coss			150		
Reverse Transfer Capacitance	Crss			90		
Turn-on Delay Time *1,*2	td(on)	VDD = 25 V, VGS = 0 to 10 V, ID = 3.5 A		17		ns
Rise Time *1,*2	tr			9		
Turn-off Delay Time *1,*2	td(off)	VDD = 25 V, VGS = 10 to 0 V, ID = 3.5 A		94		ns
Fall Time *1,*2	tf			33		

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

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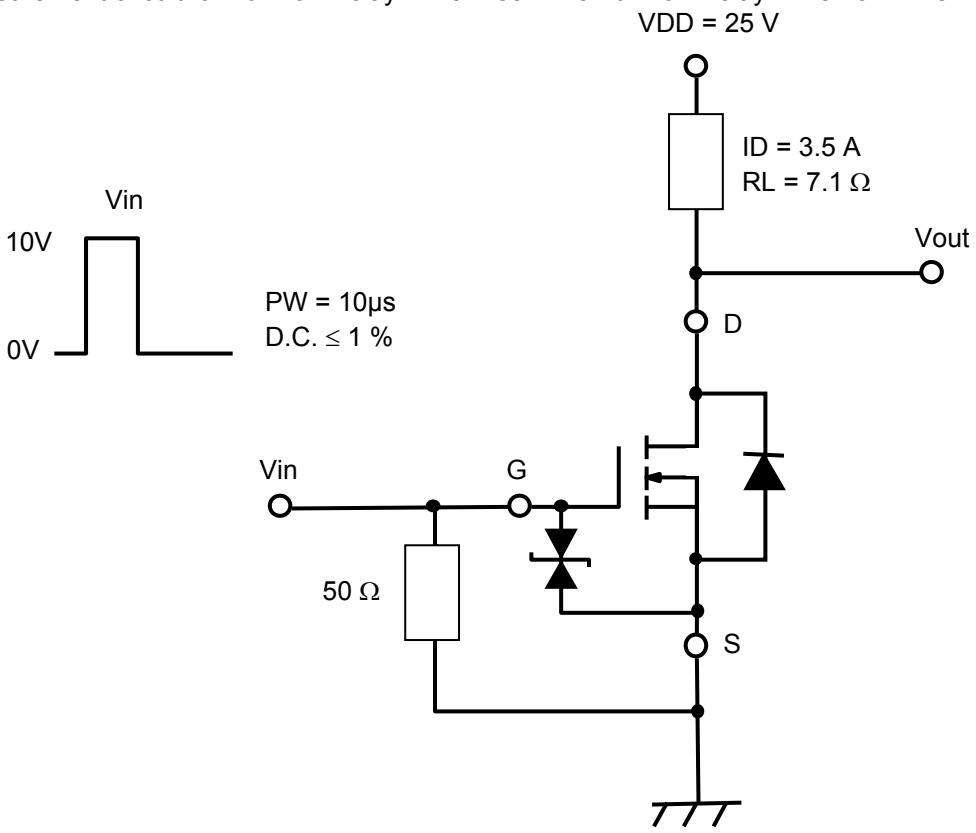
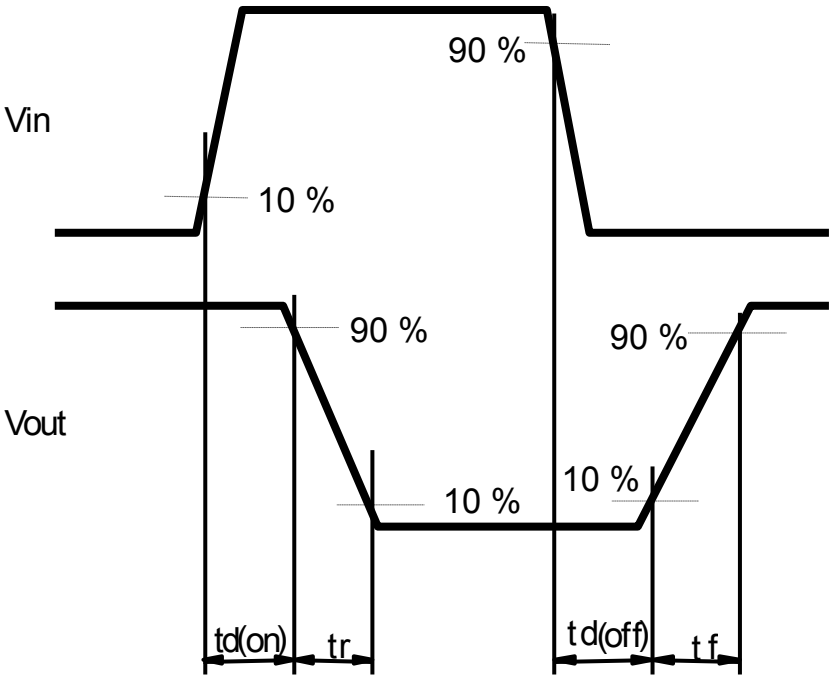
*2 Measurement circuit for Turn-on Delay Time/Rise Time/Turn-off Delay Time/Fall Time





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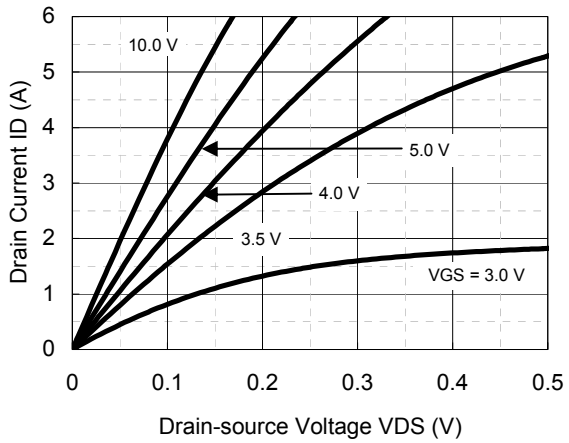
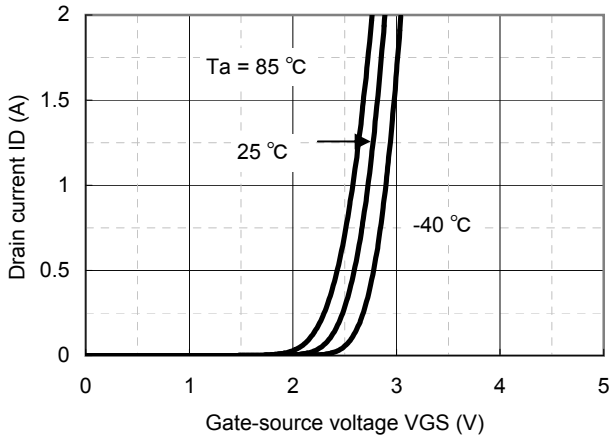
Technical Data (reference)

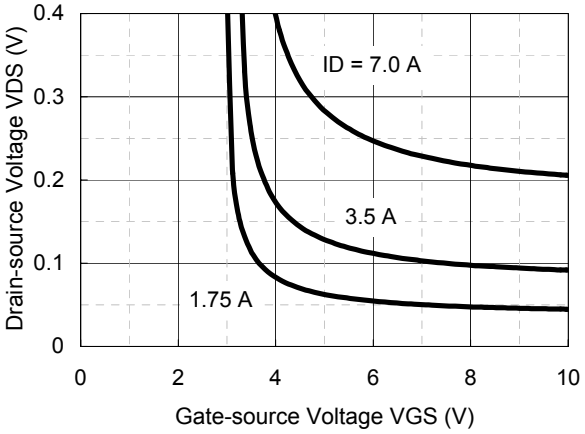
ID - VDS



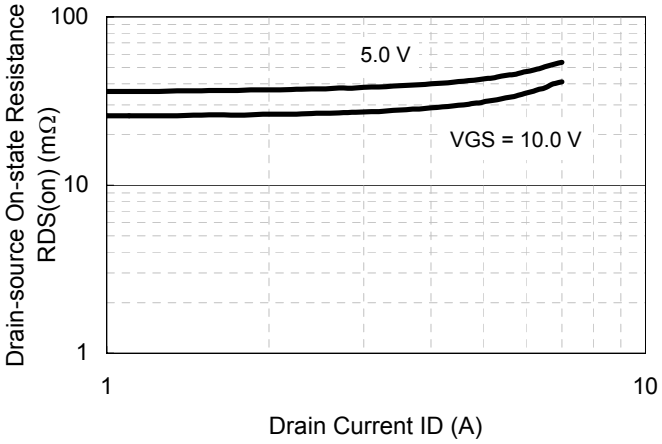
ID - VGS



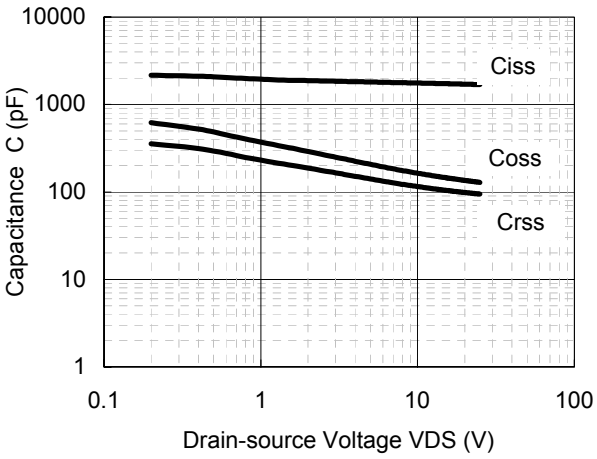
VDS - VGS



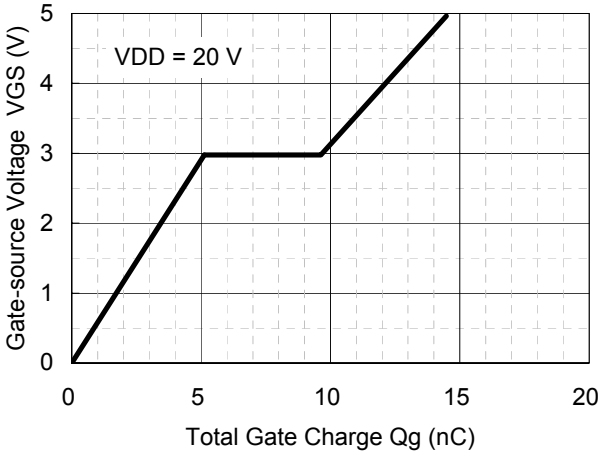
RDS(on) - ID



Capacitance - VDS



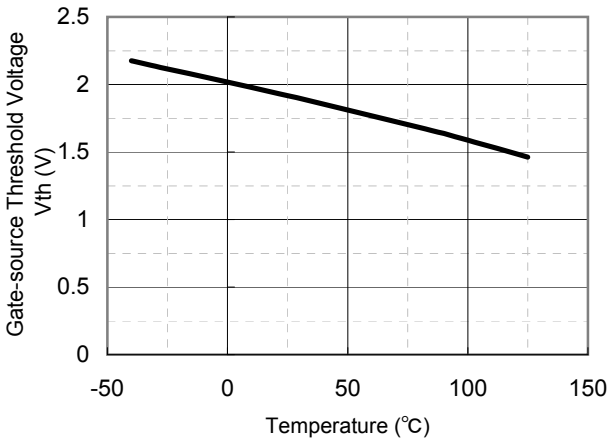
Dynamic Input/Output Characteristics



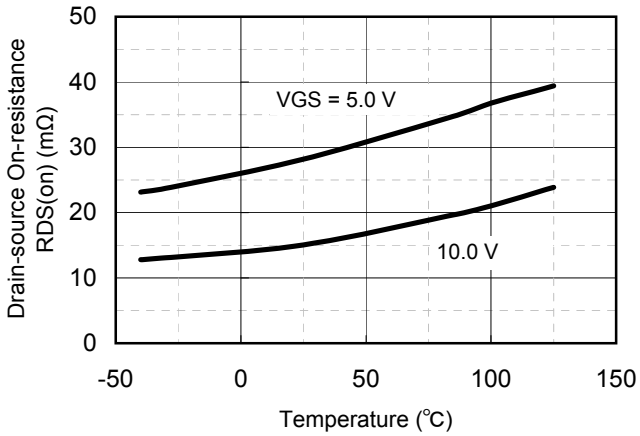
Established : 2007-12-18
Revised : 2013-09-10

Technical Data (reference)

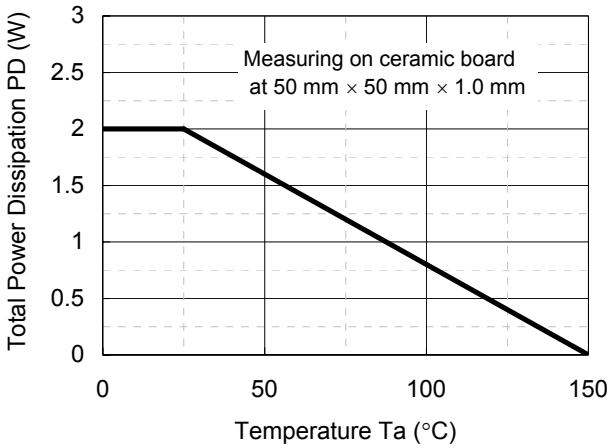
Vth - Ta



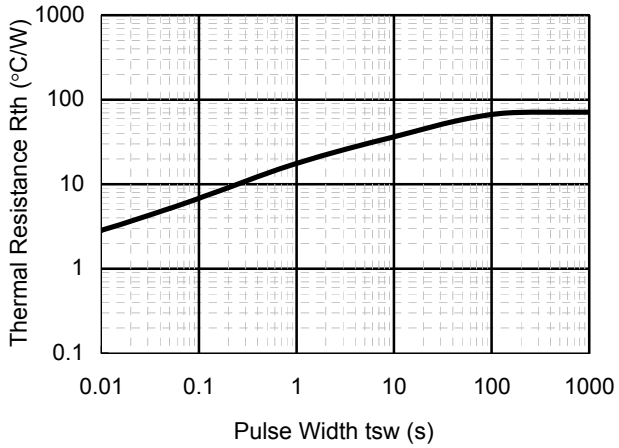
RDS(on) - Ta



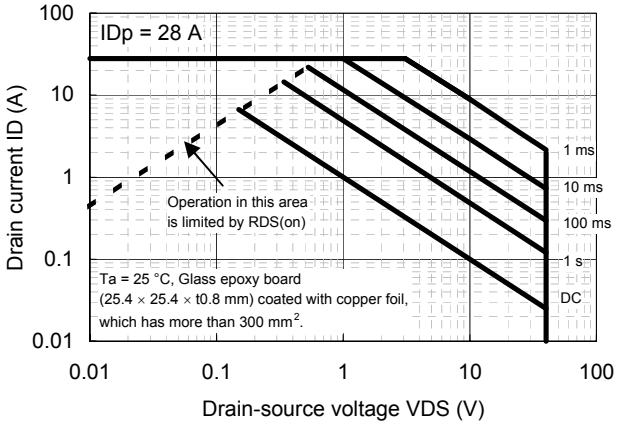
PD - Ta



Rth - tsw



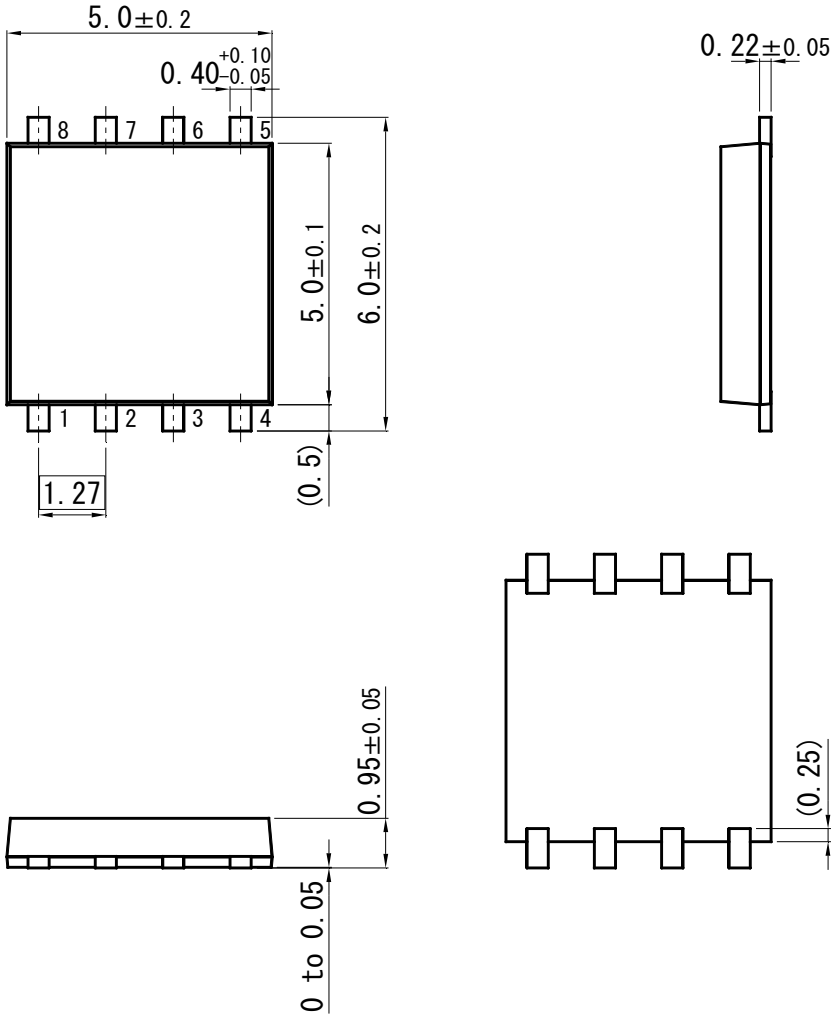
Safe Operating Area



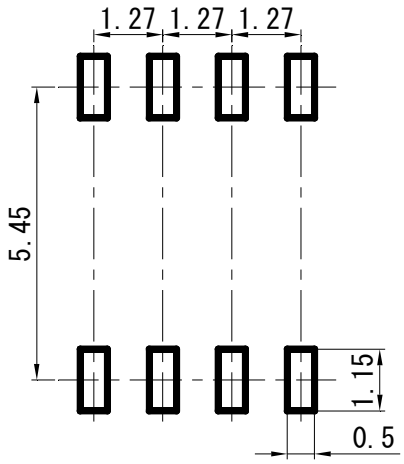
Established : 2007-12-18
Revised : 2013-09-10

SO8-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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