MTM765200LBF

Dual N-channel MOSFET

For switching

■ Features

- Low drain-source ON resistance:RDS(on)typ = 80 mΩ（VGS = 4.0 V)
- Low drive voltage: 1.8 V drive
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: JA

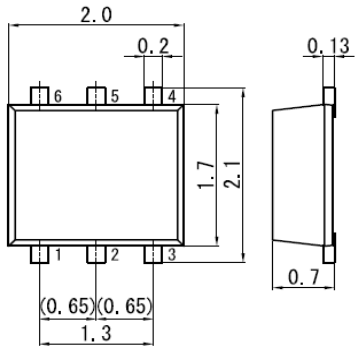
■ Basic Part Number

Dual Nch MOS 20 V (Individual)

■ Packaging

MTM765200LBF Embossed type (Thermo-compression sealing):
3 000 pcs / reel (standard)

Unit: mm



1. Source(FET1)
2. Gate(FET1)
3. Drain(FET2)
4. Source(FET2)
5. Gate(FET2)
6. Drain(FET1)

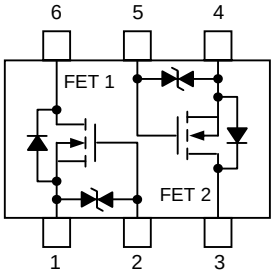
Panasonic	WSMini6-F1-B
JEITA	SC-113DA
Code	-

■ Absolute Maximum Ratings Ta = 25 °C

Parameter		Symbol	Rating	Unit
FET1 FET2	Drain-source Voltage	VDS	20	V
	Gate-source Voltage	VGS	±10	V
	Drain Current	ID	2.0	A
	Drain Current (Pulsed) *1	IDp	12	A
Overall	Total power dissipation	PD1 *2	700	mW
		PD2 *3	150	
	Channel temperature	Tch	150	°C
	Storage temperature	Tstg	-55 to +150	°C

Note: *1 t = 10 μs, Duty Cycle ≤ 1 %
*2 Glass epoxy board (25.4 × 25.4 × t0.8 mm) coated with copper foil, which has more than 300 mm^2
*3 Non-heat sink

Internal Connection



Pin name

1. Source(FET1)
2. Gate(FET1)
3. Drain(FET2)
4. Source(FET2)
5. Gate(FET2)
6. Drain(FET1)

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

FET1,2

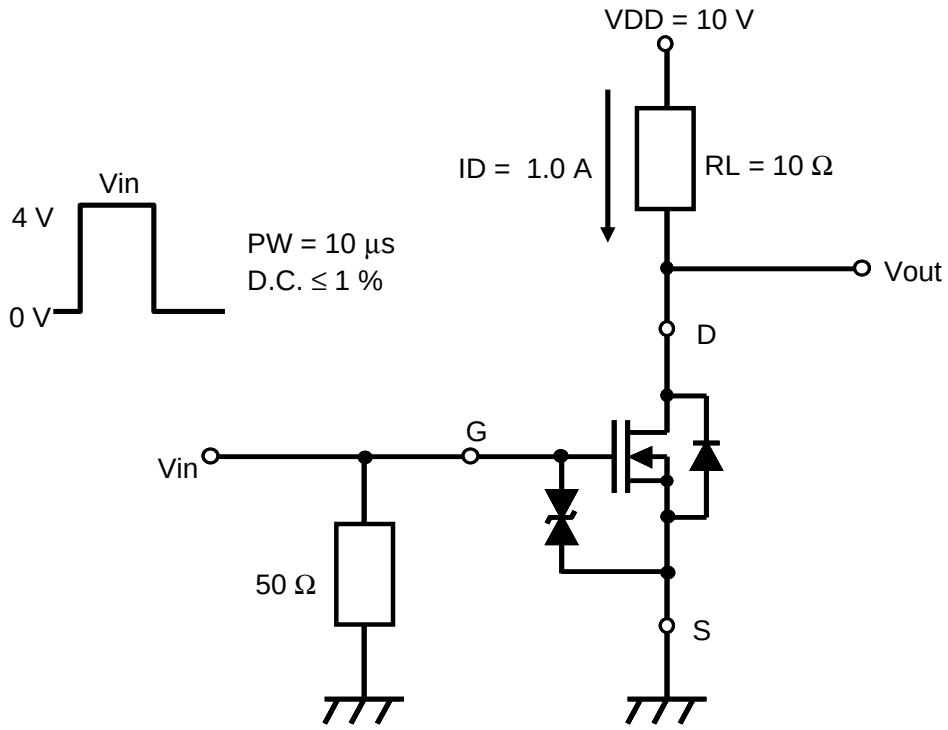
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source Breakdown Voltage	VDSS	ID = 1.0 mA, VGS = 0 V	20			V
Zero Gate Voltage Drain Current	IDSS	VDS = 20 V, VGS = 0 V			1.0	μA
Gate-source Leakage Current	IGSS	VGS = ± 8.0 V, VDS = 0 V			±10	μA
Gate-source Threshold Voltage	Vth	ID = 1.0 mA, VDS = 10 V	0.4	0.85	1.3	V
Drain-source On-state Resistance *1	RDS(on)1	ID = 1.0 A, VGS = 4.0 V		80	105	mΩ
	RDS(on)2	ID = 0.5 A, VGS = 2.5 V		100	150	
	RDS(on)3	ID = 0.5 A, VGS = 1.8 V		170	300	
Forward Transfer Admittance *1	|Yfs|	ID = 1.0 A, VDS = 10 V	2.4	4.0		S
Input Capacitance	Ciss	VDS = 10 V, VGS = 0 V, f = 1 MHz		280		pF
Output Capacitance	Coss			18		
Reverse Transfer Capacitance	Crss			17		
Turn-on delay time *2	td(on)	VDD = 10 V, VGS = 0 to 4 V, ID = 1.0 A		5		ns
Rise time *2	tr			8		
Turn-off delay time *2	td(off)	VDD = 10 V, VGS = 4 to 0 V, ID = 1.0 A		20		
Fall time *2	tf			18		

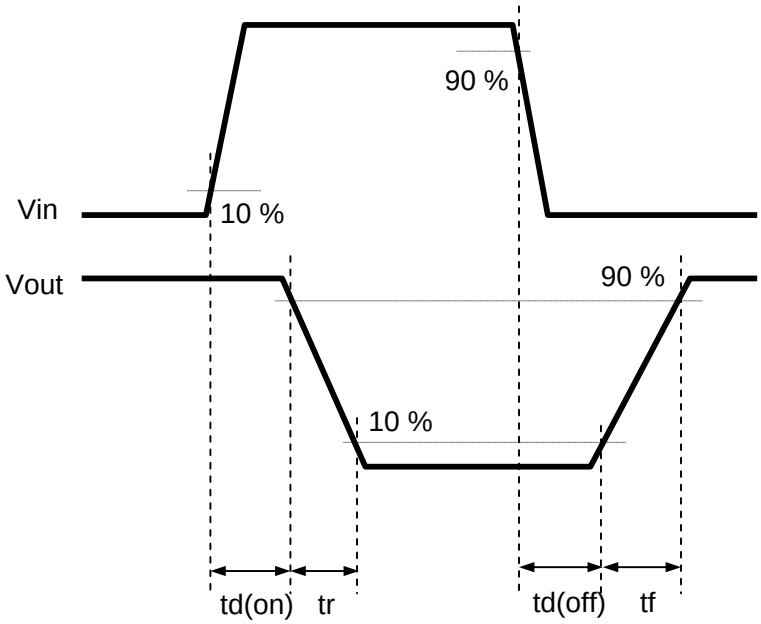
Note: Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

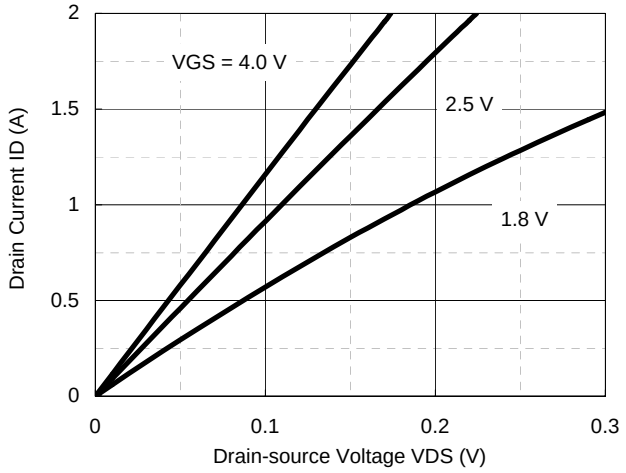
*1 Pulse measurement.

*2 See Test circuit.

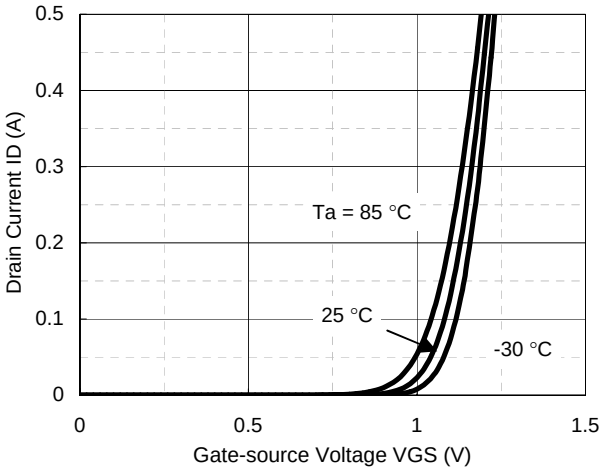
*2 Test circuit



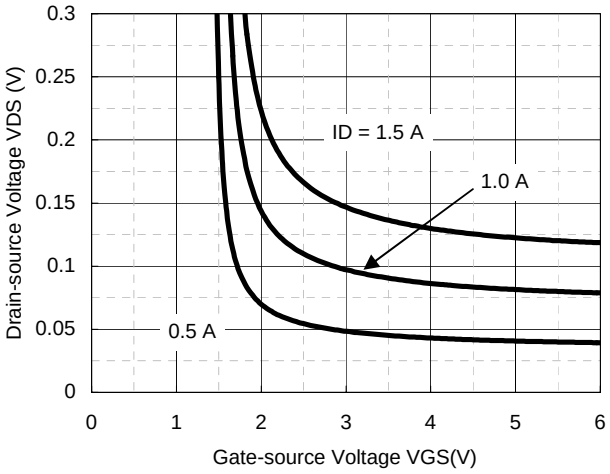




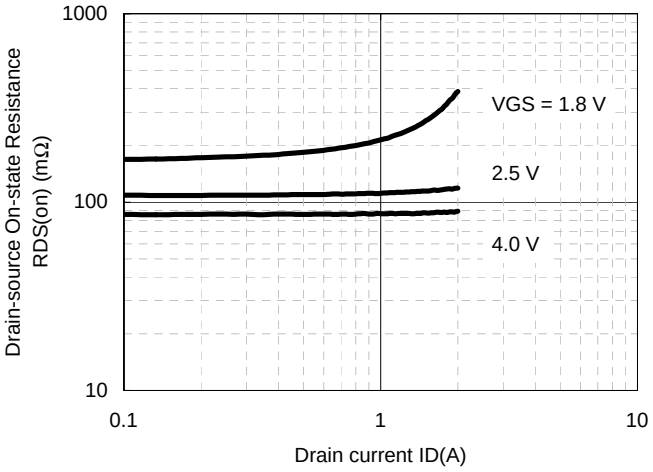
ID - VDS



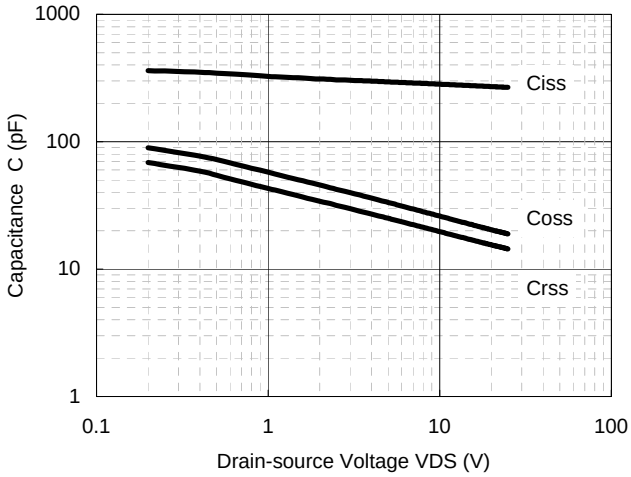
ID - VGS



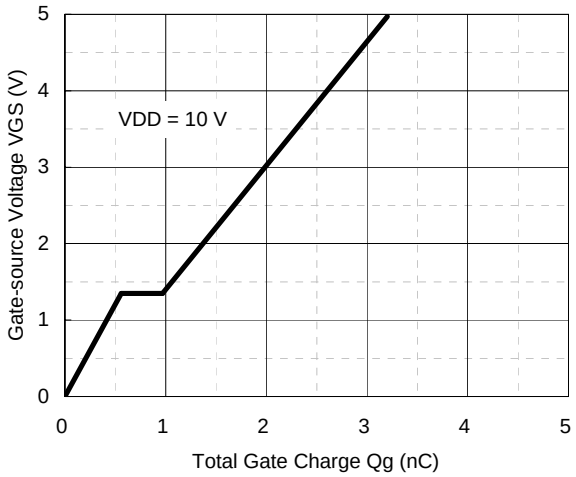
VDS - VGS



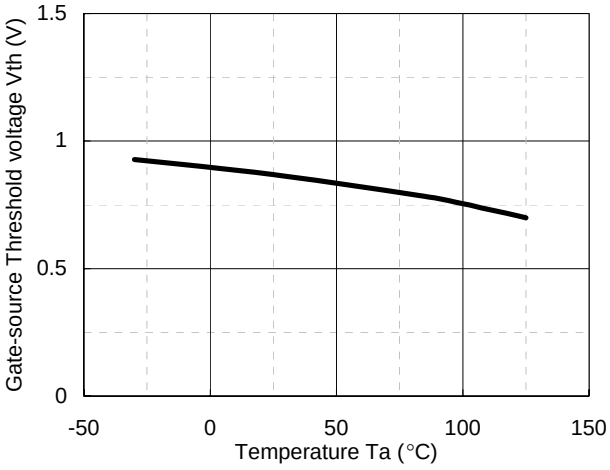
RDS(on) - ID



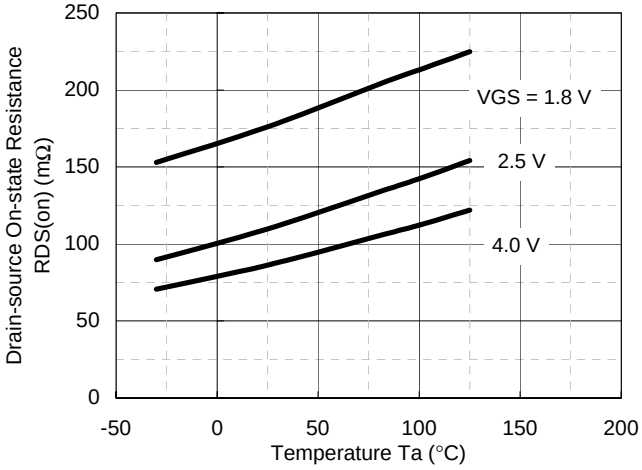
Capacitance - VDS



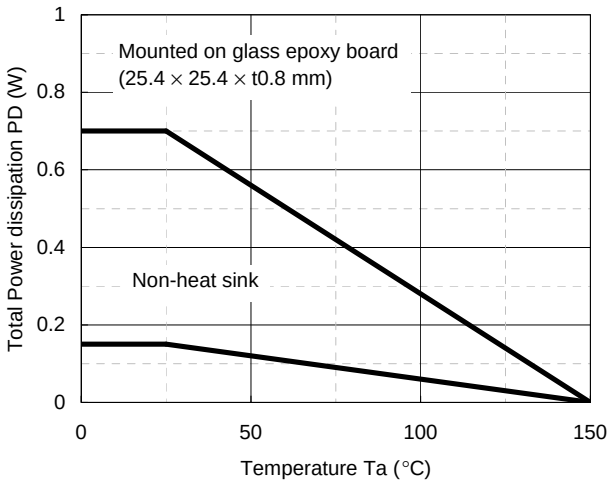
Dynamic Input/Output Characteristics



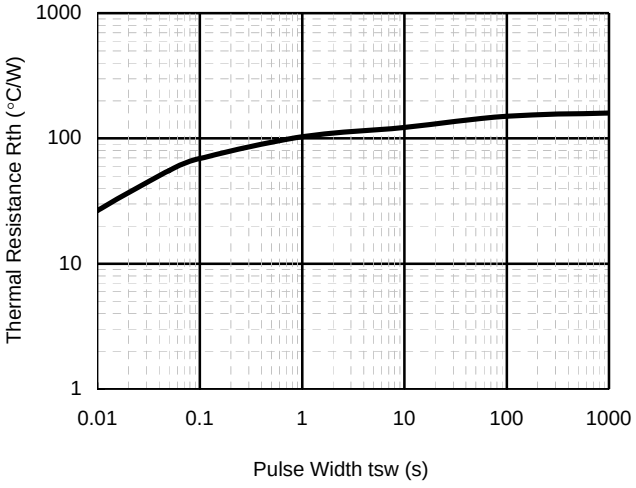
Vth - Ta



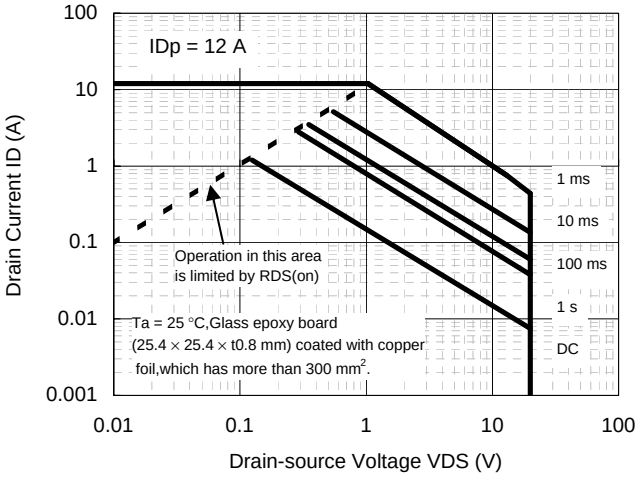
RDS(on) - Ta



PD - Ta



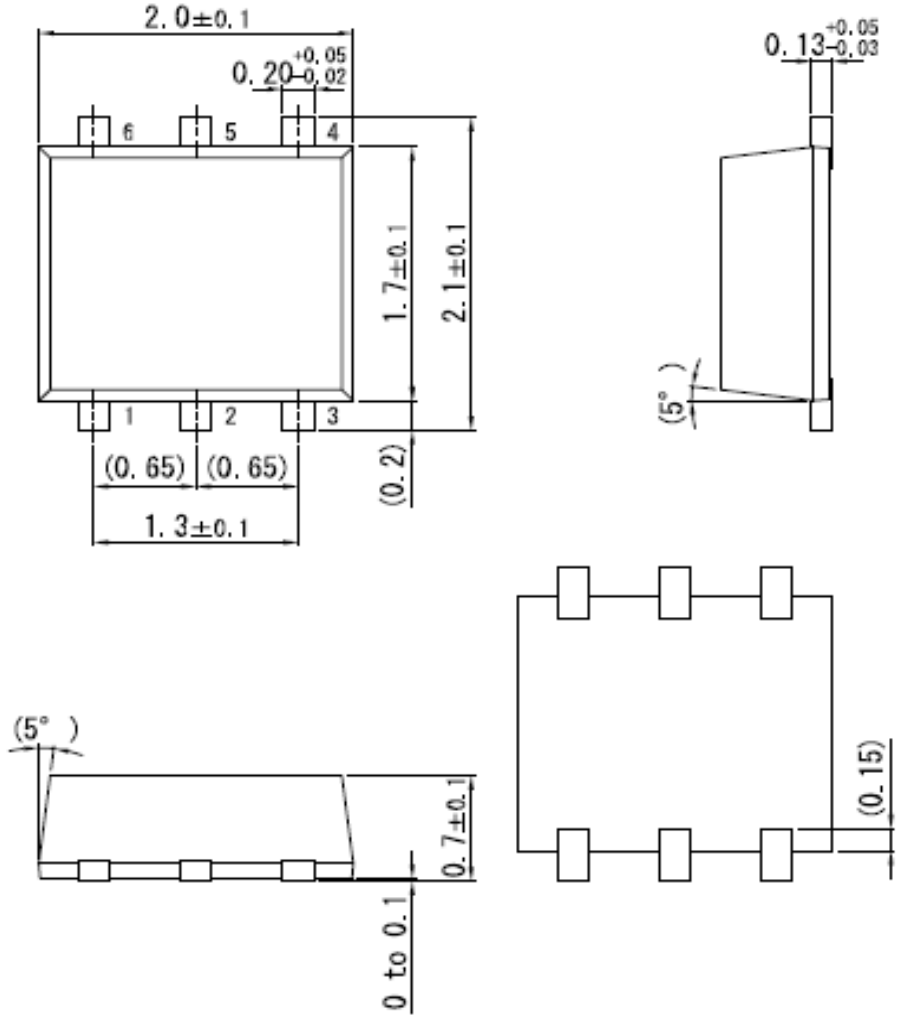
Rth -tsw



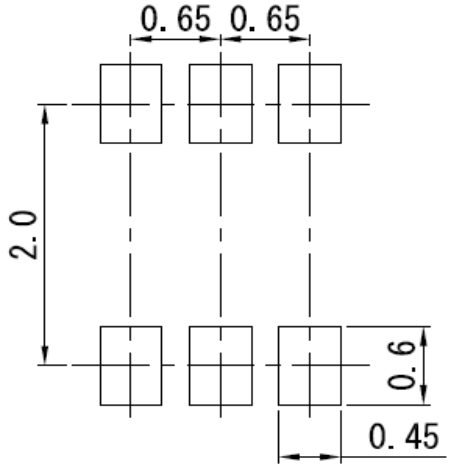
Safe Operating Area

WSMini6-F1-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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