



### **MMBF170LT1G Information**



For Reference Only

Part Number MMBF170LT1G
Manufacturer ON Semiconductor

Category Discrete Semiconductor Products
Transistors - FETs, MOSFETs - Single

**Description** MOSFET N-CH 60V 500MA SOT-23

**Package** TO-236-3, SC-59, SOT-23-3

For the pricing/inventory/lead time, please contact

us

Website: https://www.heisener.com E-mail: salesdept@heisener.com



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## **Certified Quality**

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## **MMBF170LT1G Specifications**

| Manufacturer Part Number         MMBF170LT1G           Manufacturer         ON Semiconductor           Category         Discrete Semiconductor Products           Transistors - FETs, MOSFETs - Single           Package         TO-236-3, SC-59, SOT-23-3           Series         -           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         60V           Current - Continuous Drain (Id) @ 25°C         500mA (Ta)           Drive Voltage (Max Rds On, Min Rds On)         10V           Vgs(th) (Max) @ Id         3V @ ImA           Gate Charge (Qg) (Max) @ Vgs         60pF @ 10V           Input Capacitance (Ciss) (Max) @ Vds         60pF @ 10V           Vgs (Max)         ± 20V           FET Feature         -           Power Dissipation (Max)         225mW (Ta)           Rds On (Max) @ Id, Vgs         5 Ohm @ 200mA, 10V           Operating Temperature         -55°C ~ 150°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         SOT-23-3 (TO-236)           Package / Case         TO-236-3, SC-59, SOT-23-3           Report errors?   |  |                                      |
|--|--|--------------------------------------|
| Category         Discrete Semiconductor Products           Transistors - FETs, MOSFETs - Single           Package         TO-236-3, SC-59, SOT-23-3           Series         -           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         60V           Current - Continuous Drain (Id) @ 25°C         500mA (Ta)           Drive Voltage (Max Rds On, Min Rds On)         10V           Vgs(th) (Max) @ Id         3V @ 1mA           Gate Charge (Qg) (Max) @ Vgs         -           Input Capacitance (Ciss) (Max) @ Vds         60pF @ 10V           Vgs (Max)         ±20V           FET Feature         -           Power Dissipation (Max)         225mW (Ta)           Rds On (Max) @ Id, Vgs         5 Ohm @ 200mA, 10V           Operating Temperature         -55°C ~ 150°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         SOT-23-3 (TO-236)           Package / Case         TO-236-3, SC-59, SOT-23-3   | Manufacturer Part Number               | MMBF170LT1G                          |
| Package         TCO-236-3, SC-59, SOT-23-3           Series         -           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         60V           Current - Continuous Drain (Id) @ 25°C         500mA (Ta)           Drive Voltage (Max Rds On, Min Rds On)         10V           Vgs(th) (Max) @ Id         3V @ 1mA           Gate Charge (Qg) (Max) @ Vgs         -           Input Capacitance (Ciss) (Max) @ Vds         60pF @ 10V           Vgs (Max)         ±20V           FET Feature         -           Power Dissipation (Max)         225mW (Ta)           Rds On (Max) @ Id, Vgs         5 Ohm @ 200mA, 10V           Operating Temperature         -55°C ~ 150°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         SOT-23-3 (TO-236)           Package / Case         TO-236-3, SC-59, SOT-23-3  | Manufacturer                           | ON Semiconductor                     |
| Package         TO-236-3, SC-59, SOT-23-3           Series         -           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         60V           Current - Continuous Drain (Id) @ 25°C         500mA (Ta)           Drive Voltage (Max Rds On, Min Rds On)         10V           Vgs(th) (Max) @ Id         3V @ ImA           Gate Charge (Qg) (Max) @ Vgs         -           Input Capacitance (Ciss) (Max) @ Vds         60pF @ 10V           Vgs (Max)         ±20V           FET Feature         -           Power Dissipation (Max)         225mW (Ta)           Rds On (Max) @ Id, Vgs         5 Ohm @ 200mA, 10V           Operating Temperature         -55°C ~ 150°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         SOT-23-3 (TO-236)           Package / Case         TO-236-3, SC-59, SOT-23-3   | Category                               | Discrete Semiconductor Products      |
| Series         -           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         60V           Current - Continuous Drain (Id) @ 25°C         500mA (Ta)           Drive Voltage (Max Rds On, Min Rds On)         10V           Vgs(th) (Max) @ Id         3V @ 1mA           Gate Charge (Qg) (Max) @ Vgs         -           Input Capacitance (Ciss) (Max) @ Vds         60pF @ 10V           Vgs (Max)         ±20V           FET Feature         -           Power Dissipation (Max)         225mW (Ta)           Rds On (Max) @ Id, Vgs         5 Ohm @ 200mA, 10V           Operating Temperature         -55°C ~ 150°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         SOT-23-3 (TO-236)           Package / Case         TO-236-3, SC-59, SOT-23-3   |  | Transistors - FETs, MOSFETs - Single |
| FET Type  Technology  Drain to Source Voltage (Vdss)  Current - Continuous Drain (Id) @ 25°C  500mA (Ta)  Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  £20V  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5 Ohm @ 200mA, 10V  Operating Temperature  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  N-Channel  MOSFET (Metal Oxide)  60V  60V  60V  60V  60V  60V  60PF @ 10V  225mW (Ta)  5 Ohm @ 200mA, 10V  5 Ohm @ 200mA, 10V  5 Ohm @ 200mA, 10V  60PF @ 1 | Package                                | TO-236-3, SC-59, SOT-23-3            |
| Technology  Drain to Source Voltage (Vdss)  Current - Continuous Drain (Id) @ 25°C  500mA (Ta)  Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  ET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Operating Temperature  Supplier Device Package  Package / Case  MOSFET (Metal Oxide)  60V  60V  60V  500mA (Ta)  60V  60P  60P  60P  60P  60P  60P  610V  420V  50hm 6200mA, 10V  50hm 6200mA, 10V  60P  60P  60P  60P  60P  60P  60P  6   | Series                                 | -                                    |
| Drain to Source Voltage (Vdss)  Current - Continuous Drain (Id) @ 25°C  500mA (Ta)  500mA (Ta)  10V  Vgs(th) (Max) @ Id  3V @ 1mA  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5 Ohm @ 200mA, 10V  Operating Temperature  Supplier Device Package  SOT-23-3 (TO-236)  Package / Case  60V  50W  60V  500mA (Ta)  60V  500mA (Ta)  60V  60P @ 10V  42V  5 Ohm @ 20V  60P @ 10V  50P @ 10V  60P @ 10V | FET Type                               | N-Channel                            |
| Current - Continuous Drain (Id) @ 25°C 500mA (Ta)  Drive Voltage (Max Rds On, Min Rds On) 10V  Vgs(th) (Max) @ Id 3V @ 1mA  Gate Charge (Qg) (Max) @ Vgs -  Input Capacitance (Ciss) (Max) @ Vds 60pF @ 10V  Vgs (Max) ±20V  FET Feature -  Power Dissipation (Max) 225mW (Ta)  Rds On (Max) @ Id, Vgs 50hm @ 200mA, 10V  Operating Temperature -55°C ~ 150°C (TJ)  Mounting Type Surface Mount  Supplier Device Package SOT-23-3 (TO-236)  Package / Case TO-236-3, SC-59, SOT-23-3   | Technology                             | MOSFET (Metal Oxide)                 |
| Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Some and a surface Mount  Supplier Device Package  Package / Case  10V  3V @ 1mA  60pF @ 10V  +20V  FET Wester and a surface Mount  Supplier Device Package  SOT-23-3 (TO-236)  TO-236-3, SC-59, SOT-23-3   | Drain to Source Voltage (Vdss)         | 60V                                  |
| Vgs(th) (Max) @ Id  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Operating Temperature  Supplier Device Package  Package / Case  3V @ 1mA  Supplier Device Package  FOR TO-236-3, SC-59, SOT-23-3  | Current - Continuous Drain (Id) @ 25°C | 500mA (Ta)                           |
| Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  60pF @ 10V  Vgs (Max)  ±20V  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5 Ohm @ 200mA, 10V  Operating Temperature  -55°C ~ 150°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  TO-236-3, SC-59, SOT-23-3   | Drive Voltage (Max Rds On, Min Rds On) | 10V                                  |
| Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  ET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5 Ohm @ 200mA, 10V  Operating Temperature  -55°C ~ 150°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  TO-236-3, SC-59, SOT-23-3  | Vgs(th) (Max) @ Id                     | 3V @ 1mA                             |
| Vgs (Max)±20VFET Feature-Power Dissipation (Max)225mW (Ta)Rds On (Max) @ Id, Vgs5 Ohm @ 200mA, 10VOperating Temperature-55°C ~ 150°C (TJ)Mounting TypeSurface MountSupplier Device PackageSOT-23-3 (TO-236)Package / CaseTO-236-3, SC-59, SOT-23-3   | Gate Charge (Qg) (Max) @ Vgs           | -                                    |
| FET Feature - Power Dissipation (Max) 225mW (Ta) Rds On (Max) @ Id, Vgs 5 Ohm @ 200mA, 10V Operating Temperature -55°C ~ 150°C (TJ) Mounting Type Surface Mount Supplier Device Package SOT-23-3 (TO-236) Package / Case TO-236-3, SC-59, SOT-23-3   | Input Capacitance (Ciss) (Max) @ Vds   | 60pF @ 10V                           |
| Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5 Ohm @ 200mA, 10V  Operating Temperature  -55°C ~ 150°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  SOT-23-3 (TO-236)  Package / Case  TO-236-3, SC-59, SOT-23-3  | Vgs (Max)                              | ±20V                                 |
| Rds On (Max) @ Id, Vgs5 Ohm @ 200mA, 10VOperating Temperature-55°C ~ 150°C (TJ)Mounting TypeSurface MountSupplier Device PackageSOT-23-3 (TO-236)Package / CaseTO-236-3, SC-59, SOT-23-3   | FET Feature                            | -                                    |
| Operating Temperature  -55°C ~ 150°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  SOT-23-3 (TO-236)  Package / Case  TO-236-3, SC-59, SOT-23-3   | Power Dissipation (Max)                | 225mW (Ta)                           |
| Mounting Type Surface Mount Supplier Device Package SOT-23-3 (TO-236) Package / Case TO-236-3, SC-59, SOT-23-3   | Rds On (Max) @ Id, Vgs                 | 5 Ohm @ 200mA, 10V                   |
| Supplier Device Package SOT-23-3 (TO-236) Package / Case TO-236-3, SC-59, SOT-23-3   | Operating Temperature                  | -55°C ~ 150°C (TJ)                   |
| Package / Case TO-236-3, SC-59, SOT-23-3   | Mounting Type                          | Surface Mount                        |
|  | Supplier Device Package                | SOT-23-3 (TO-236)                    |
| Report errors?   | Package / Case                         | TO-236-3, SC-59, SOT-23-3            |
|  |  | Report errors?                       |

#### **MMBF170LT1G Guarantees**



#### **Quality Guarantees**

We provide 90 days warranty. \*

If the items you received were not in perfect quality, we would be responsible for your refund or replacement, but the items must be returned in their original condition.



#### **Service Guarantees**

We guarantee 100% customer satisfaction.

Our experienced sales team and tech support team back our services to satisfy all our customers.

# **MMBF170LT1G Payment Methods**



















### **MMBF170LT1G Shipping Methods**













If you have any question about MMBF170LT1G, please do not hesitate to contact us!

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