

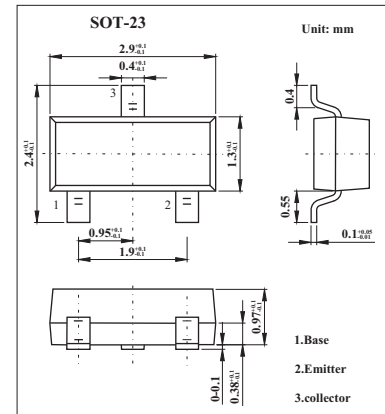
NPN Silicon Power Switching Transistor

FMMT619

Features

Collector current: $I_c=2A$

power dissipation : $P_c=625mW$



Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter | Symbol | Rating | Unit |
|---|----------------|-------------|------------|
| Collector-base voltage | V_{CBO} | 50 | V |
| Collector-emitter voltage | V_{CEO} | 50 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_c | 2 | A |
| Base current | I_B | 0.5 | A |
| Power dissipation | P_c | 625 | mW |
| Operating and storage temperature range | T_j, T_{stg} | -55 to +150 | $^\circ C$ |

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Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test conditons | Min | Typ | Max | Unit |
|--|----------------------|--|-----|------|-----|------|
| Collector-base breakdown voltage | V _{CB0} | I _C =100 μ A | 50 | | | V |
| Collector-emitter breakdown voltage * | V _{CEO} | I _C =10mA | 50 | | | V |
| Emitter-base breakdown voltage | V _{EB0} | I _E =100 μ A | 5 | | | V |
| Collector cutoff current | I _{CBO} | V _{CB} =40V | | | 100 | nA |
| Emitter cut-off current | I _{EBO} | V _{EB} =4V | | | 100 | nA |
| Collector emitter cutoff current | I _{CES} | V _{CE} =40V | | | 100 | nA |
| Collector-emitter saturation voltage * | V _{CE(sat)} | I _C =0.1A, I _B =10mA | | 10 | 20 | mV |
| | | I _C =1A, I _B =10mA | | 125 | 200 | mV |
| | | I _C =2A, I _B =50mA | | 150 | 220 | mV |
| Base-Emitter Saturation Voltage * | V _{BE(sat)} | I _C =2A, I _B =50mA* | | 0.87 | 1.0 | V |
| Base-Emitter Turn-On Voltage * | V _{BE(on)} | I _C =2A, V _{CE} =2V* | | 0.80 | 1.0 | V |
| DC current gain | h _{FE} | I _C =10mA, V _{CE} =2V* | 200 | 400 | | |
| | | I _C =200mA, V _{CE} =2V | 300 | 450 | | |
| | | I _C =1A, V _{CE} =2V* | 200 | 400 | | |
| | | I _C =2A, V _{CE} =2V* | 100 | 225 | | |
| | | I _C =6A, V _{CE} =2V* | | 40 | | |
| Output capacitance | C _{ob} | V _{CB} =10V, f=1MHz | | 12 | 20 | pF |
| Transition frequency | f _T | I _C =50mA, V _{CE} =10V, f=100MHz | 165 | | | MHz |

* Pulse test: t_p 300 μs; d 0.02.

Marking

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| Marking | 619 |
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