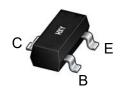


Features

Switching transistor

Extremely low saturation voltage

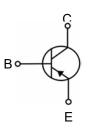
Complementary NPN type: FMMT619



SOT-23

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|--------|---------|----------|
| FMMT720 | SOT-23 | 720 | 3000 |



Maxmim Ratings (Ta=25 unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|----------------------------------|--|----------|------------|
| V _{CBO} | Collector-Base Voltage | -40 | V |
| V _{CEO} | Collector-Emitter Voltage | -40 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| Ic | Collector Current | -0.5 | Α |
| Ісм | Peak Pulse Current | -4 | Α |
| Pc | Collector Power Dissipation | 350 | mW |
| R _{ΘJA} | Thermal Resistance From Junction To Ambient | 500 | °C/W |
| T _J ,T _{stg} | Operation Junction And Storage Temperature Range | -55~+150 | $^{\circ}$ |

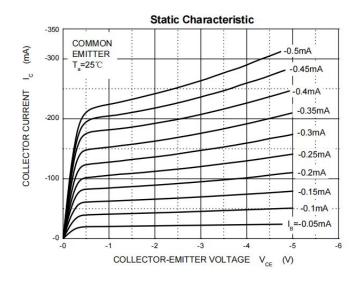


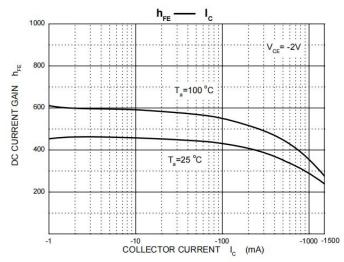
Electrcal Charcteristics (Ta=25 unless otherwise noted)

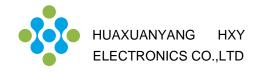
| Parameter | Symbol | Test conditions | Min | Тур | Max | Unit |
|--------------------------------------|--------------------|--|--|-----|------|------|
| Collector-base breakdown voltage | V(BR)CBO | Ic=-100µA, IE=0 | -40 | | | V |
| Collector-emitter breakdown voltage | V(BR)CEO* | Ic= -10mA, I _B =0 | -40 | | | V |
| Emitter-base breakdown voltage | V(BR)EBO | I _E = -100μA, I _C =0 | -5 | | | V |
| Collector cut-off current | Ісво | V _{CB} =-35V, I _E =0 | | | -0.1 | μΑ |
| Collector cut-off current | Ices | V _{CE} =-35V,V _{BE} =0 | | | -0.1 | μΑ |
| Emitter cut-off current | ІЕВО | V _{EB} = -4V, I _C =0 | | | -0.1 | μΑ |
| | hfE(1) * | Vc= -2V, Ic=-10mA | 300 | | | |
| | hFE(2) * | Vc=-2V, Ic=-100mA | 300 | | | |
| DC current gain | hfE(3) * | Vc=-2V, Ic=-1A | 180 | | | |
| | hFE(4) * | Vc=-2V, Ic=-1.5A | 60 | | | |
| | hFE(5) * | Vc=-2V, Ic=-3A | 12 | | | |
| | VCE(sat) (1) * | Ic=-0.1A, IB=-10mA | | | -40 | mV |
| Collector-emitter saturation voltage | VCE(sat) (2) * | Ic=-1A, Iв=-50mA | | | -220 | mV |
| | VCE(sat) (3) * | Ic=-1.5A, Iв=-100mA | -40 5 -5 -300 300 180 60 12 | | -330 | mV |
| Base-emitter saturation voltage | VBE(sat) * | Ic=-1.5A, Iв= -75mA | | | -1 | V |
| Base-emitter voltage | VBE(on) * | Vc=-2V, Ic=-1.5A | | | -1 | V |
| Transition frequency | f⊤ | Vc=-10V,lc=-50mA, f=100MHz | 150 | | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} =-10V,f=1MHZ | | | 25 | pF |
| Turn-on Time | t _(on) | Vcc=-15V, Ic=-0.75A, | | 40 | | ns |
| Turn-off Time | t _(off) | I _{B1} = I _{B2} =-15mA | | 435 | | ns |

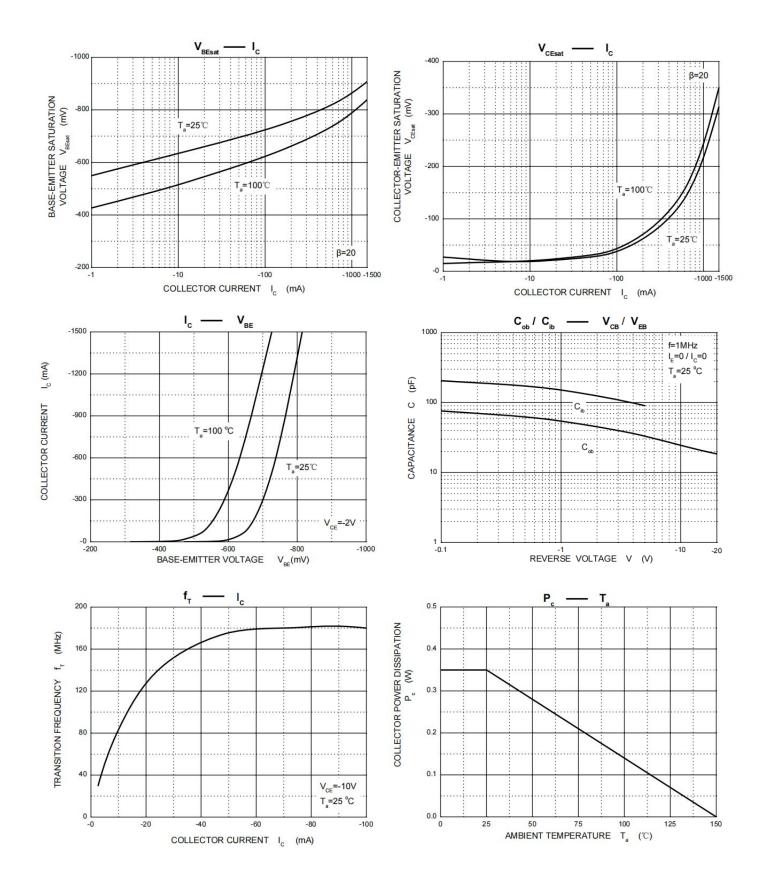
^{*}Measured under pulse conditions . Pulse width =300µs. Duty cycle≤2%.

Typical Characteristics

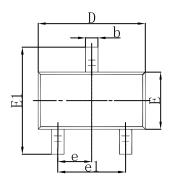


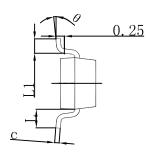


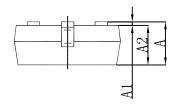




SOT-23 Package Outline Dimensions







| Symbol | Dimensions In Millimeters | | Dimensions In Inches | | |
|--------|---------------------------|-------|----------------------|-------|--|
| Зупьог | Min Max | Max | Min | Max | |
| Α | 0.900 | 1.150 | 0.035 | 0.045 | |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 | |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 | |
| b | 0.300 | 0.500 | 0.012 | 0.020 | |
| С | 0.080 | 0.150 | 0.003 | 0.006 | |
| D | 2.800 | 3.000 | 0.110 | 0.118 | |
| Е | 1.200 | 1.400 | 0.047 | 0.055 | |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 | |
| е | 0.950 TYP | | 0.037 TYP | | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 | |
| L | 0.550 REF | | 0.022 REF | | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 | |
| θ | 0° | 8° | 0° | 8° | |



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