

Transistors

● Absolute maximum ratings (Ta = 25°C)

| Parameter | | Symbol | Limits | Unit |
|----------------------|------------|-----------------------|-------------|------|
| Supply voltage | | V _{CC} | 50 | V |
| Input current | | V _{IN} | 40 | V |
| | | | -10 | |
| Output current | | I _O | 30 | mA |
| | | I _{C (Max.)} | 100 | |
| Power dissipation | EMC2,UMC2N | P _d | 150 (TOTAL) | mW |
| | FMC2A | | 300 (TOTAL) | |
| Junction temperature | | T _J | 150 | °C |
| Storage temperature | | T _{stg} | -55~+150 | °C |

*1 120mW per element must not be exceeded.

*2 200mW per element must not be exceeded.

● Electrical characteristics (Ta = 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|----------------------|--------------------------------|------|------|------|------|---|
| Input voltage | V _{I (off)} | - | - | 0.5 | V | V _{CC} =5V, I _O =100μA |
| | V _{I (on)} | 3 | - | - | | V _O =0.2V, I _O =5mA |
| Output voltage | V _{O (on)} | - | 0.1 | 0.3 | V | I _O /I _I =10mA/0.5mA |
| Input current | I _I | - | - | 0.36 | mA | V _I =5V |
| Output current | I _{O (off)} | - | - | 0.5 | μA | V _{CC} =50V, V _I =0V |
| DC current gain | G _I | 56 | - | - | - | V _O =5V, I _O =5mA |
| Transition frequency | f _T | - | 250 | - | MHz | V _{CE} =10mA, I _E =-5mA, f=100MHz |
| Input resistance | R _I | 15.4 | 22 | 28.6 | kΩ | - |
| Resistance ratio | R ₂ /R ₁ | 0.8 | 1 | 1.2 | - | - |

* Transition frequency of the device

● Electrical characteristic curves

DT_{Tr1}

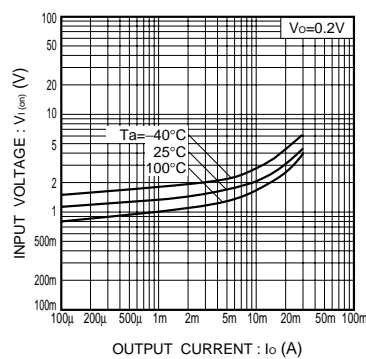


Fig.1 Input voltage vs. output current (ON characteristics)

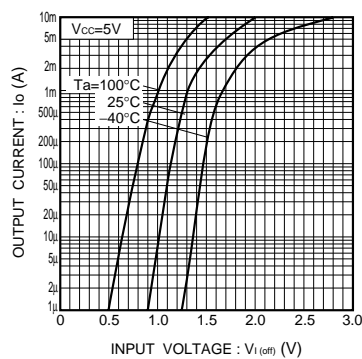


Fig.2 Output current vs. input voltage (OFF characteristics)

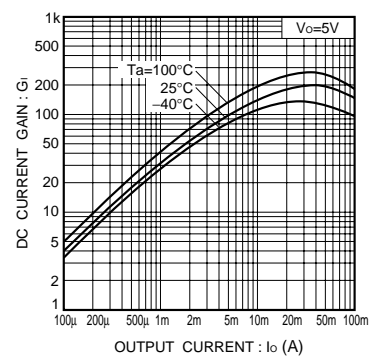


Fig.3 DC current gain vs. output current

Transistors

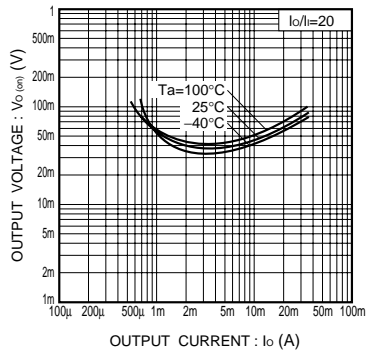


Fig.4 Output voltage vs. output current

DT_{r2}

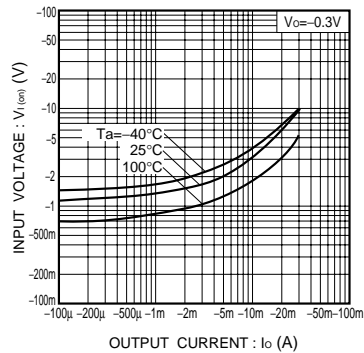


Fig.5 Input voltage vs. output current (ON characteristics)

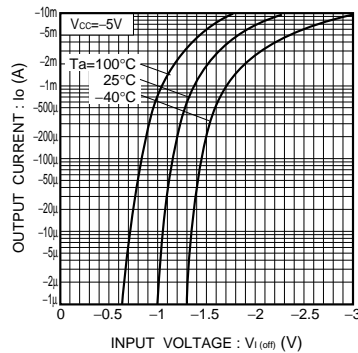


Fig.6 Output current vs. input voltage (OFF characteristics)

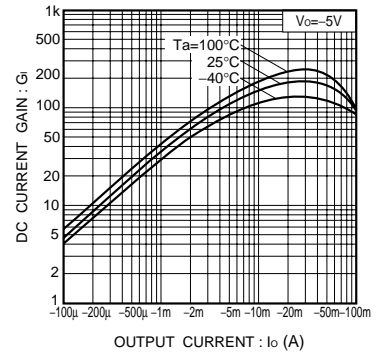


Fig.7 DC current gain vs. output current

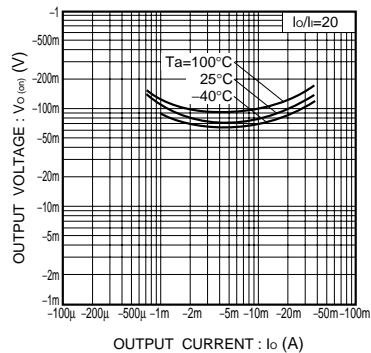


Fig.8 Output voltage vs. output current

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