

Transistors

●Absolute maximum ratings (Ta=25°C)

Di1

| Parameter | Symbol | Limits | Unit |
|---------------------------------------|------------------|--------|------|
| Average rectified forward current | I _o | 200 | mA |
| Forward current surge peak (60Hz, 1↔) | I _{FSM} | 1 | A |
| Reverse voltage (DC) | V _R | 30 | V |
| Junction temperature | T _j | 125 | °C |

DTr2

| Parameter | Symbol | Limits | Unit |
|----------------------|-----------------------|--------|------|
| Supply voltage | V _{CC} | 50 | V |
| Input voltage | V _{IN} | 12 | V |
| | | -5 | |
| Output current | I _o | 100 | mA |
| | I _{C (MAX.)} | 100 | mA |
| Power dissipation | P _d | 120 | mW * |
| Junction temperature | T _j | 150 | °C |

* Each terminal mounted on a recommended.

Di1 / DTr2

| Parameter | Symbol | Limits | Unit |
|---------------------|------------------|-------------|------|
| Power dissipation | P _d | 150 | mW * |
| Storage temperature | T _{stg} | -55 to +125 | °C |

* Each terminal mounted on a recommended.

●Electrical characteristics (Ta=25°C)

Di1

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------|----------------|------|------|------|------|-----------------------|
| Forward voltage | V _F | - | 0.40 | 0.50 | V | I _F =200mA |
| Reverse current | I _R | - | 4.0 | 30 | μA | V _R =10V |

DTr2

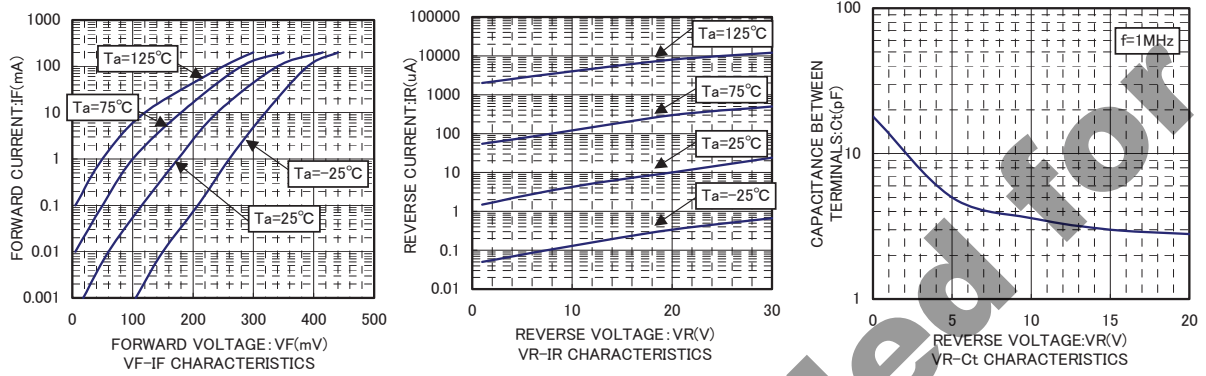
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|----------------------|--------------------------------|------|------|------|------|---|
| Input voltage | V _{I(off)} | - | - | 0.5 | V | V _{CC} =5V / I _o =100μA |
| | V _{I(on)} | 1.1 | - | - | V | V _o =0.3V / I _o =5mA |
| Output voltage | V _{O(on)} | - | 100 | 300 | mV | I _o =5mA, I _i =0.25mA |
| Input current | I _I | - | - | 3.6 | mA | V _I =5V |
| Output current | I _{O(off)} | - | - | 500 | nA | V _{CC} =50V / V _I =0V |
| DC current gain | G _I | 80 | - | - | - | V _o =5V / I _o =10mA |
| Transition frequency | f _T | - | 250 | - | MHz | V _{CE} =10V / I _E =-5mA, f=100MHz |
| Input resistance | R ₁ | 1.54 | 2.2 | 2.86 | kΩ | - |
| Resistance ratio | R ₂ /R ₁ | 17 | 21 | 26 | - | - |

* Characteristics of built-in transistor.

Transistors

●Electrical characteristic curves

Di1



DTr2

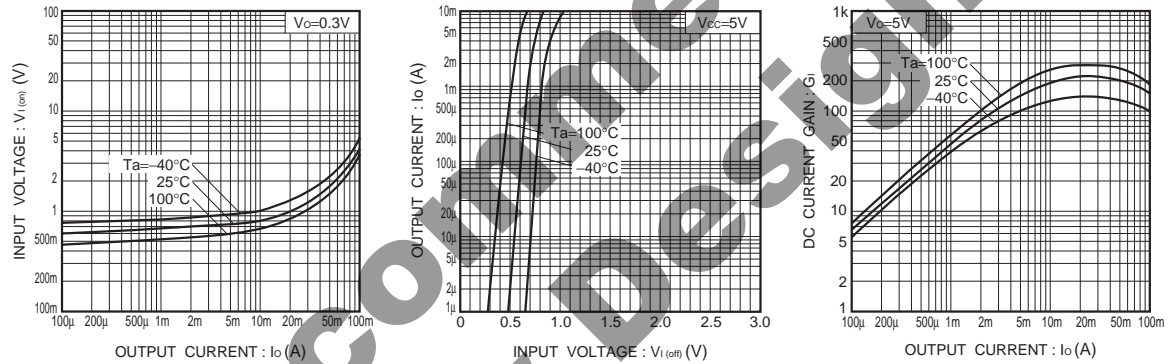


Fig.1 Input voltage vs. output current (ON characteristics)

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

Fig.3 DC current gain vs. output current

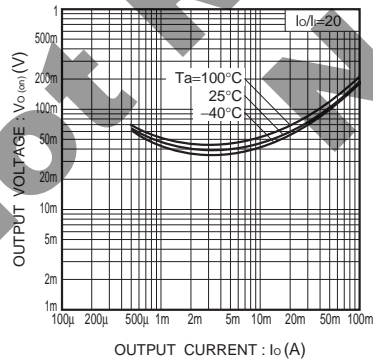


Fig.4 Output voltage vs. output current

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