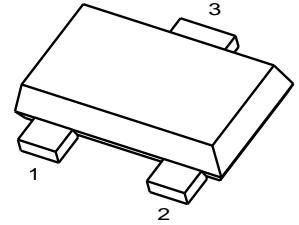


Features

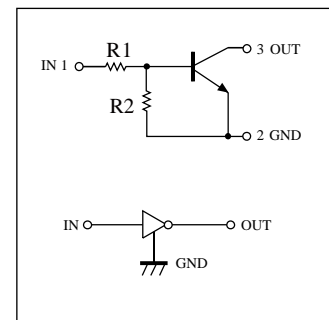
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors(see equivalent circuit)
- The bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input.They also have the advantage of almost completely eliminating parasitic effects
- Only the on/off conditions need to be set for operation, making device design easy



SOT-723

INFORMATION

| Part Number | MARKING | Package |
|-------------|---------|----------|
| DTC704EM | 26 | SOT- 723 |





DTC704EM

● MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

| Symbol | Parameter | Limits | Unit |
|-----------------------------------|--|----------|------|
| V _{CC} | Supply Voltage | 50 | V |
| V _{IN} | Input Voltage | -10~+40 | V |
| I _O | Output Current | 30 | mA |
| I _{CM} | Peak Collector Current | 100 | mA |
| P _D | Power Dissipation | 100 | mW |
| T _J , T _{stg} | Operation Junction and Storage Temperature Range | -55~+150 | °C |

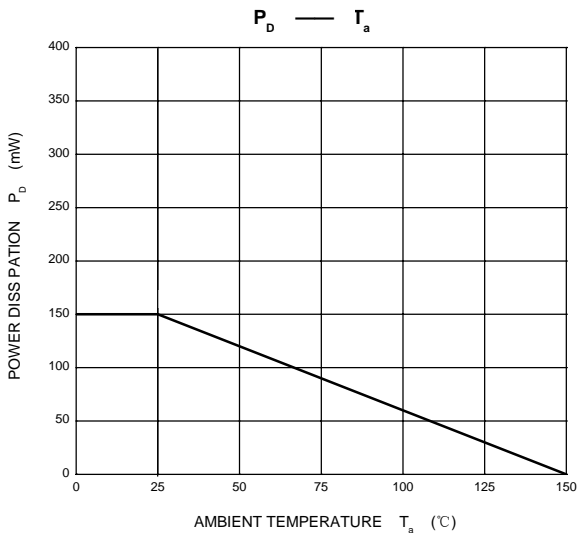
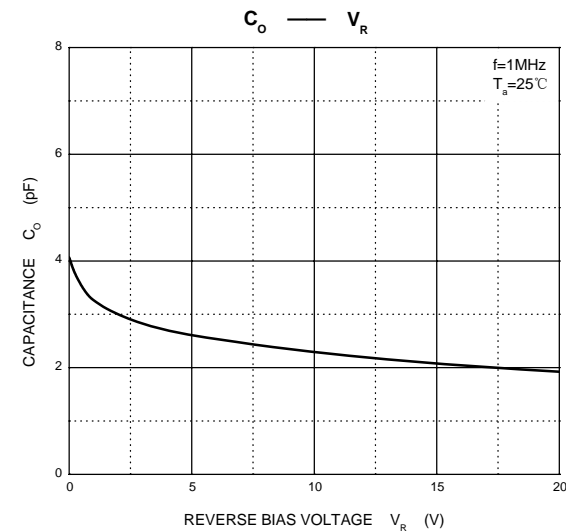
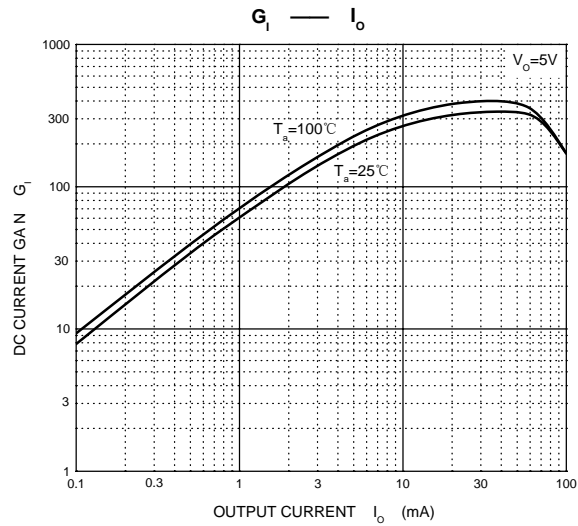
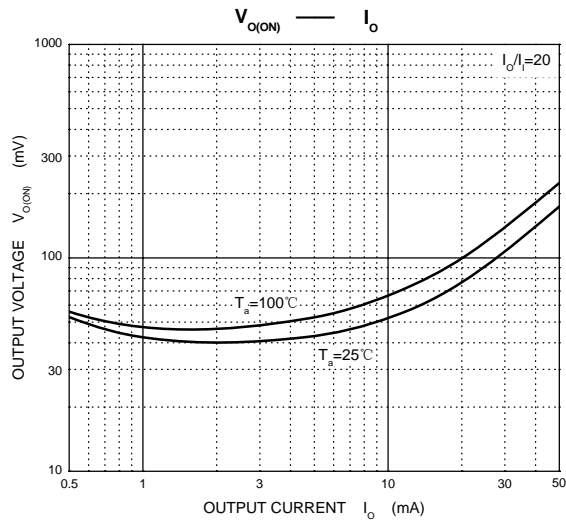
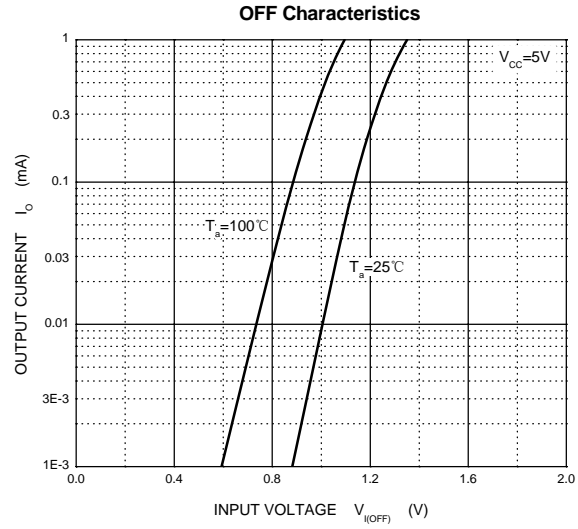
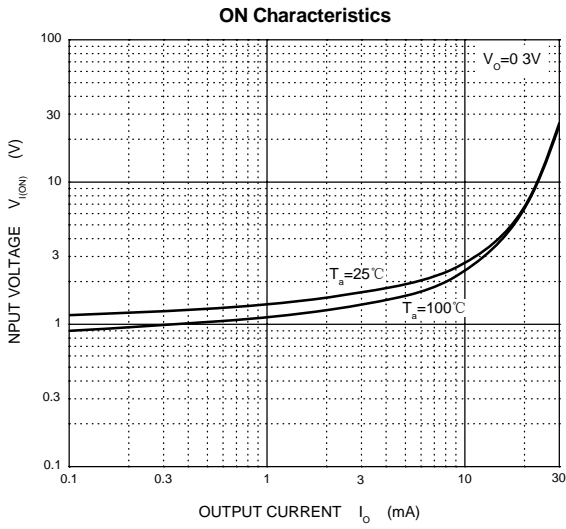
● ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|----------------------|--------------------------------|--|------|-----|------|------|
| Input voltage | V _{I(off)} | V _{CC} =5V, I _O =100μA | 0.5 | | | V |
| | V _{I(on)} | V _O =0.3V, I _O =2mA | | | 3 | V |
| Output voltage | V _{O(on)} | I _O /I _I = 100/1mA/0.5mA | | | 0.3 | V |
| Input current | I _I | V _I = 5V | | | 0.18 | mA |
| Output current | I _{O(off)} | V _{CC} =50V, V _I = 0 | | | 0.5 | μA |
| DC current gain | G _I | V _O =5V, I _O =5mA | 68 | | | |
| Input resistance | R ₁ | | 32.9 | 47 | 61.1 | kΩ |
| Resistance ratio | R ₂ /R ₁ | | 0.8 | 1 | 1.2 | |
| Transition frequency | f _T | V _O =10V, I _O =5mA, f=100MHz | | 250 | | MHz |

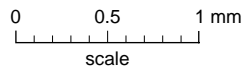
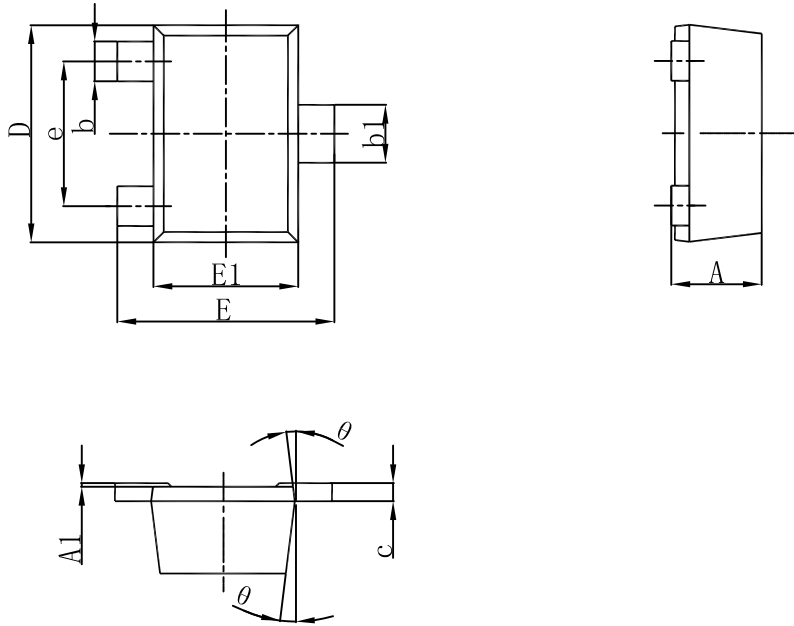


DTC704EM

Typical Performance Characteristics



■ SOT-723



DIMENSIONS (mm are the original dimensions)

| UNIT | A | A ₁ max | b | b ₁ | c | D | E | E ₁ |
|------|--------------|-----------------------|--------------|----------------|--------------|--------------|--------------|----------------|
| mm | 0.43 0.50 | 0.05 | 0.17 0.27 | 0.27 0.37 | 0.08 0.15 | 1.15 1.25 | 0.15 0.25 | 0.75 0.85 |