

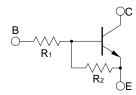
SILICON TRANSISTOR

FA1A4M

MEDIUM SPEED SWITCHING RESISTOR BUILT-IN TYPE NPN TRANSISTOR MINI MOLD

FEATURES

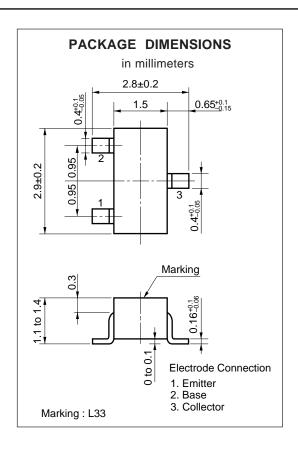
• Resistors Built-in TYPE



· Complementary to FN1A4M

ABSOLUTE MAXIMUM RATINGS (TA = 25 °C)

| Collector to Base Voltage | Vсво | 60 | V |
|------------------------------|------|-------------|--------------|
| Collector to Emitter Voltage | Vceo | 50 | V |
| Emitter to Base Voltage | Vево | 10 | V |
| Collector Current (DC) | Ic | 100 | mΑ |
| Collector Current (Pulse) | Ic | 200 | mΑ |
| Total Power Dissipation | Рт | 200 | mW |
| $(T_A = 25 \degree C)$ | | | |
| Junction temperature | ТJ | 150 | \mathbb{C} |
| Storage Temperature Range | Tstg | -55 to +150 | $^{\circ}$ |



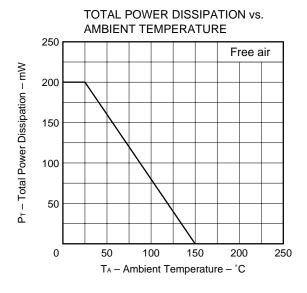
ELECTRICAL CHARACTERISTICS (TA = 25 °C)

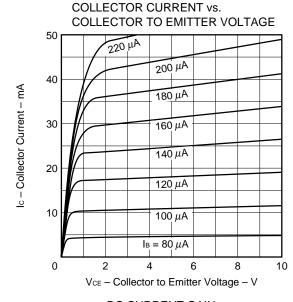
| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|------------------------------|--------------------|------|------|------|------|---------------------------------------|
| Collector Cutoff Current | Ісво | | | 100 | nA | Vcb = 50 V, IE = 0 |
| DC Current Gain | h _{FE1} * | 35 | 62 | 100 | | Vce = 5.0 V, Ic = 5.0 mA |
| DC Current Gain | hFE2* | 80 | 230 | | | VcE = 5.0 V, Ic = 50 mA |
| Collector Saturation Voltage | VcE(sat)* | | 0.05 | 0.2 | V | Ic = 5.0 mA, I _B = 0.25 mA |
| Low-Level Input Voltage | VIL* | | 1.08 | 0.8 | V | $V_{CE} = 5.0$, $I_{C} = 100 \mu A$ |
| High-Level Input Voltage | V _{IH} * | 3.0 | 1.4 | | V | VcE = 0.2 V, Ic = 5.0 mA |
| Input Resistor | R ₁ | 7.0 | 10 | 13 | kΩ | |
| Resistor Ratio | R1/R2 | 0.9 | 1.0 | 1.1 | | |
| Turn-on Time | ton | | 0.06 | 0.2 | μs | Vcc = 5 V, Vin = 5 V |
| Storage Time | tstg | | 2.0 | 5.0 | μs | $R_L = 1 \text{ k}\Omega$ |
| Turn-off Time | toff | | 2.15 | 6.0 | μs | PW = 2 μ s, Duty Cycle \leq 2 % |

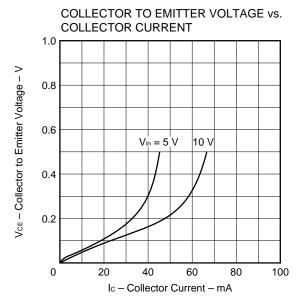
^{*} Pulsed: PW = 350 μ s, Duty Cycle = 2 %

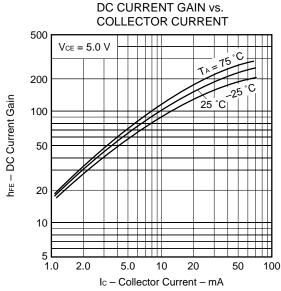


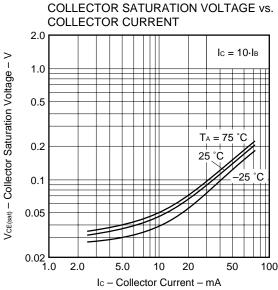
TYPICAL CHARACTERISTICS (TA = 25 °C)

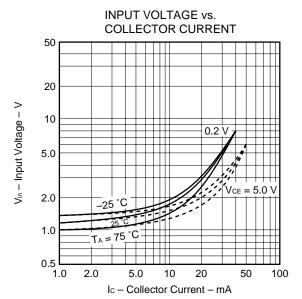




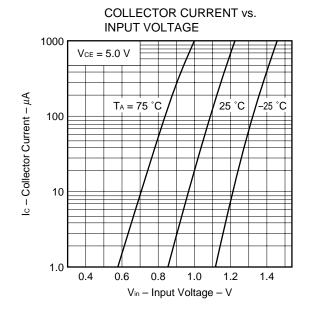


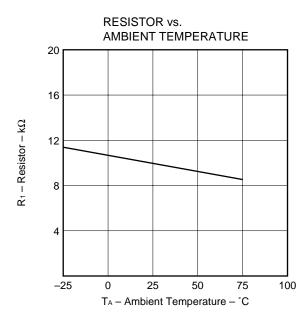


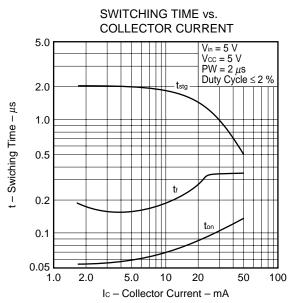












REFERENCE

| Document Name | Document No. |
|---|--------------|
| NEC semiconductor device reliability/quality control system | TEI-1202 |
| Quality grade on NEC semiconductor devices | IEI-1209 |
| Semiconductor device mounting technology manual | IEI-1207 |
| Guide to quality assurance for semiconductor devices | MEI-1202 |
| Semiconductor selection guide | MF-1134 |

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Anti-radioactive design is not implemented in this product.

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