



### Plastic Silicon Controlled Rectifiers

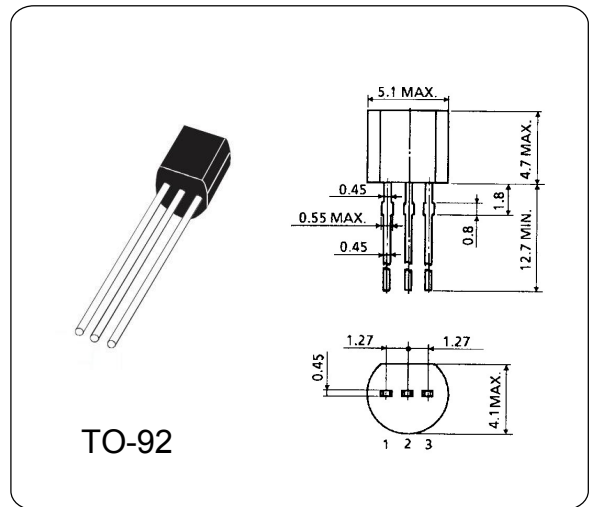
### 03P4M

#### GENERAL DESCRIPTION

PNPN devices designed for high volume, linepowered consumer applications such as relay and lamp drivers, small motor controls, gate drivers for larger thyristors, and sensing and detection circuits. Supplied in an inexpensive plastic TO-92 package which is readily adaptable for use in automatic insertion equipment.

#### ABSOLUTE MAXIMUM RATINGS ( Ta = 25 °C)

| Parameter                            | Symbol                 | Typ     | Unit |
|--------------------------------------|------------------------|---------|------|
| Repetitive peak off-state voltages   | $V_{DRM}$<br>$V_{RRM}$ | 400     | V    |
| Average on-state current             | $I_{T(AV)}$            | 0.3     | A    |
| RMS on-state current                 | $I_{T(RMS)}$           | 0.47    | A    |
| Non-repetitive peak on-state current | $I_{TSM}$              | 8.0     | A    |
| Max. Operating Junction Temperature  | $T_j$                  | 110     | °C   |
| Storage Temperature                  | $T_{stg}$              | -45~150 | °C   |



#### ELECTRICAL CHARACTERISTICS ( Ta = 25 °C)

| Parameter                          | Symbol                 | Test Conditions                               | Min | Typ  | Max | Unit |
|------------------------------------|------------------------|---|-----|------|-----|------|
| Repetitive peak off-state voltages | $V_{DRM}$<br>$V_{RRM}$ |   | 400 | —    | —   | V    |
| Average on-state current           | $I_{T(AV)}$            | half sine wave; $T_{mb} < 103\text{ °C}$      | —   | 0.3  | —   | A    |
| RMS on-state current               | $I_{T(RMS)}$           | all conduction angles                         | —   | 0.47 | —   | A    |
| On-state voltage                   | $V_T$                  | $I_T = 4.0\text{ A}$                          | —   | —    | 2.5 | V    |
| Holding current                    | $I_H$                  | $V_{DM} = 24\text{ V}; I_{TM} = 4.0\text{ A}$ | —   | —    | 5   | mA   |
| Latching current                   | $I_L$                  | $V_D = 6.0\text{ V}; I_{GT} = 20\text{ mA}$   | —   | 0.6  | 6   | mA   |
| Gate trigger current               | $I_{GT}$               | $V_D = 6.0\text{ V}; R_L = 100\ \Omega$       | —   | 15   | 200 | uA   |
| Gate trigger voltage               | $V_{GT}$               | $V_D = 6.0\text{ V}; R_L = 100\ \Omega$       | —   | 0.5  | 0.8 | V    |