

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS (T_J = 100°C unless otherwise noted)

| Rating | Symbol | Value | Unit |
|---|---------------------|-------------|-------|
| Peak reverse blocking voltage | | | |
| MCR1906-1 | V _{RRM} | 25 | Volts |
| MCR1906-2 | | 50 | |
| MCR1906-3 | | 100 | |
| MCR1906-4 | | 200 | |
| MCR1906-5 | | 300 | |
| MCR1906-6 | | 400 | |
| MCR1906-7 | | 500 | |
| MCR1906-8 | | 600 | |
| Forward current RMS (all conduction angles) | I _{T(RMS)} | 1.6 | Amps |
| Peak forward surge current (1 cycle, 60 Hz, T_J = -40 to +100°C) | I _{TSM} | 15 | Amps |
| Forward peak gate power | P _{GM} | 0.1 | Watts |
| Forward average gate power | P _{G(AV)} | 0.01 | Watts |
| Forward peak gate current | I _{GM} | 0.1 | Amps |
| Forward peak gate voltage | V _{GFM} | 6.0 | Volts |
| Reverse peak gate voltage | V _{GRM} | 6.0 | Volts |
| Operating junction temperature range | T _J | -65 to +100 | °C |
| Storage temperature range | T _{stg} | -65 to +150 | °C |
| Lead solder temperature (<1/16" from case, 10 sec. max.) | - | +230 | °C |

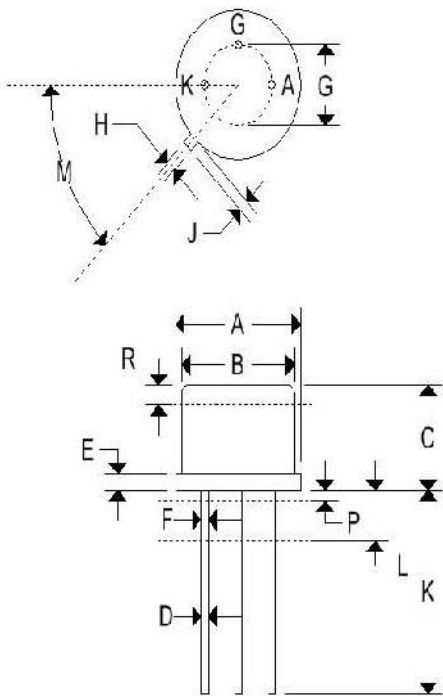
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted, R_{GK} = 1000Ω)

| Characteristic | Symbol | Min | Max | Unit |
|---|------------------------------------|----------|----------|-------|
| Peak forward blocking voltage⁽¹⁾ | | | | |
| MCR1906-1 | V _{DRM} | 25 | - | Volts |
| MCR1906-2 | | 50 | - | |
| MCR1906-3 | | 100 | - | |
| MCR1906-4 | | 200 | - | |
| MCR1906-5 | | 300 | - | |
| MCR1906-6 | | 400 | - | |
| MCR1906-7 | | 500 | - | |
| MCR1906-8 | | 600 | - | |
| Peak forward blocking current (Rated V_{DRM} @ T_J = 100°C) | I _{DRM} | - | 500 | μA |
| Peak reverse blocking current (Rated V_{RRM} @ T_J = 100°C) | I _{RRM} | - | 500 | μA |
| Forward "on" voltage (I_{TM} = 1.0A peak) | V _{TM} | - | 1.75 | Volts |
| Gate trigger current (continuous dc)⁽²⁾ (V_{AK} = 7Vdc, R_L = 100Ω, T_C = 25°C) | I _{GT} | - | 1.0 | mA |
| Gate trigger voltage (continuous dc) (V _{AK} = 7Vdc, R _L = 100Ω, T _C = 25°C) (V _{AK} = Rated V _{DRM} , R _L = 100Ω, T _J = 100°C) | V _{GT} V _{GD} | - 0.1 | 1.0 - | Volts |

| | | | | |
|--|-------|---|-----|----|
| Holding current ($V_{AK} = 7V_{dc}$) | I_H | - | 5.0 | mA |
|--|-------|---|-----|----|

MECHANICAL CHARACTERISTICS

| | |
|-----------------|-----------------------------|
| Case: | TO-39 |
| Marking: | Body painted, alpha-numeric |
| Pin out: | See below |



| | TO-39 | | | |
|---|-----------|-------|-------------|--------|
| | Inches | | Millimeters | |
| | Min | Max | Min | Max |
| A | 0.335 | 0.370 | 8.510 | 9.390 |
| B | 0.305 | 0.335 | 7.750 | 8.500 |
| C | 0.240 | 0.260 | 6.100 | 6.600 |
| D | 0.016 | 0.021 | 0.410 | 0.530 |
| E | 0.009 | 0.041 | 0.230 | 1.040 |
| F | 0.016 | 0.019 | 0.410 | 0.480 |
| G | 0.200 BSC | | 5.080 BSC | |
| H | 0.028 | 0.034 | 0.720 | 0.860 |
| J | 0.029 | 0.045 | 0.740 | 1.140 |
| K | 0.500 | 0.750 | 12.700 | 19.050 |
| L | 0.250 | - | 6.350 | - |
| M | 45° BSC | | 45° BSC | |
| P | - | 0.050 | - | 1.270 |
| R | 0.100 | - | 2.540 | - |

