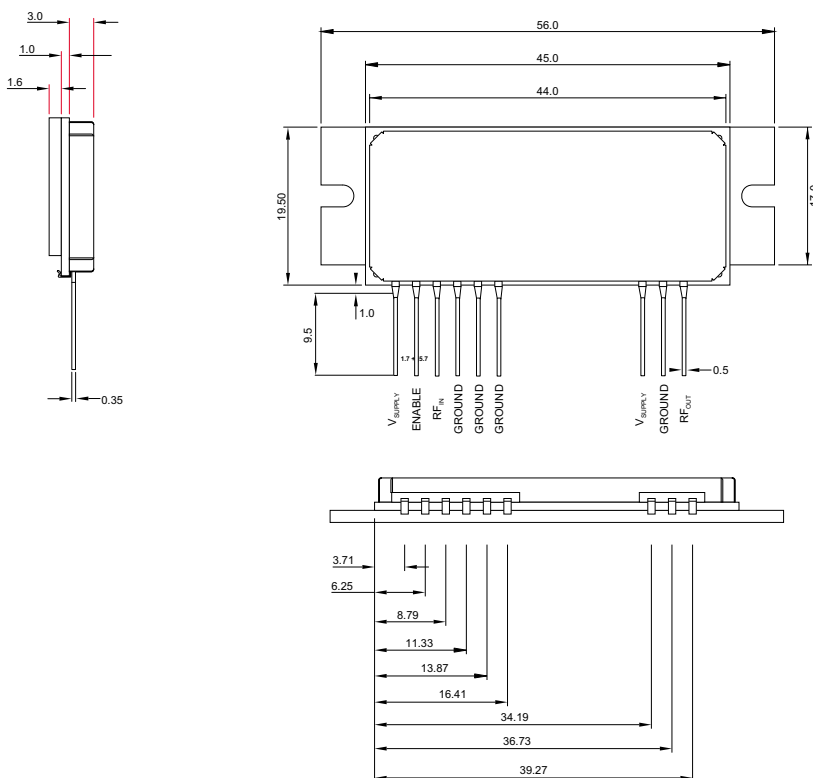


**UHF SILICON MOSFET  
POWER AMPLIFIER MODULE  
12W , 12V  
400MHz — 408MHz**

**MECHANICAL DATA**

(Dimensions in mm)



**ABSOLUTE MAXIMUM RATINGS** (T<sub>case</sub> = 25°C unless otherwise stated)

|   |              |
|---|--------------|
| Maximum Supply Voltage                    | 16V          |
| Maximum Supply Current                    | 3A           |
| Maximum Input Power                       | 20mW         |
| Maximum Enable Voltage                    | 5V           |
| Maximum Load VSWR                         | ∞:1          |
| Maximum Heatsink Temperature <sup>1</sup> | 100°C        |
| Storage Temperature                       | -65 to 150°C |

**Notes**

1. Output power may be reduced if the temperature rises above this figure.

**OPERATING CONDITIONS**

All performance characteristics that are quoted in this specification are for the following conditions.

| Parameter            | Min. | Typ. | Max. | Unit |
|----------------------|------|------|------|------|
| Supply Voltage       | 10.2 | 12   | 13.8 | V    |
| Humidity             | 20   |      | 75   | %    |
| Heatsink Temperature |      |      | 100  | °C   |
| Ambient Temperature  | -40  |      | +55  | °C   |

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = -40^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ )

| Parameter                                   | Test Conditions  | Min. | Typ. | Max. | Unit |
|---|--|------|------|------|------|
| Frequency Range                             |  | 400  |      | 408  | MHz  |
| Rated Output Power(CW)                      | The typical rated power of 12W is quoted for a supply voltage of 12V. (See note 1) | 9    | 12   | 18   | W    |
| Input Power for Rated Output CW Power       |  | 8    |      | 13   | dBm  |
| Minimum Output Power                        | See Note 2   |      |      | 0.1  | W    |
| Input Return Loss                           |  |      |      | -10  | dB   |
| Rejection of 2nd Harmonic                   | The harmonic level is measured relative to the power at the fundamental frequency. | 25   |      |      | dBc  |
| Rejection of 3rd and higher order harmonics | The harmonic level is measured relative to the power at the fundamental frequency. | 35   |      |      | dBc  |
| PA Enable Vih                               | Module enabled   | 2.0  |      |      | V    |
| PA Enable Vil                               | Module disabled  |      |      | 0.8  | V    |
| Supply current at rated CW output power     |  |      |      | 2.5  | A    |
| Standby Supply Current                      | No RF drive  |      |      | 1    | mA   |
| VSWR load mismatch tolerance                | Unconditionally stable under all phases  |      |      | 5:1  | —    |

**Notes**

- Output power at 10.2V and 13.8V measured with maximum Input power for Rated Output CW Power.
- The power delivered by the power amplifier module is controlled by varying the input drive level. The output power is continuously variable over the quoted power range, i.e. the rated output power to the specified minimum power.