

Data Sheet

HMC1126ACEZ

ABSOLUTE MAXIMUM RATINGS

Table 5.

Parameter	Rating
V _{DD}	6 V
Gate Bias Voltage	
V _{GG1}	-3 V to 0 V
V _{GG2}	
For V _{DD} = 3.3 V	0.5 V to 2.5 V
For V _{DD} = 4 V	0.5 V to 3 V
For V _{DD} = 5 V	1.0 V to 4 V
RFIN Power	22 dBm
Continuous Power Dissipation (P _{DISS} , T _A = 85°C (Derate 18.4 mW/°C Above 85°C))	1.66 W
Temperature	
Channel	175°C
Peak Reflow (Moisture Sensitivity Level (MSL) 3) ¹	260°C
Storage Range	-55°C to +150°C
Operating Range	-40°C to +85°C
Junction to Maintain 1,000,000 Hours Mean Time to Failure (MTTF)	175
Nominal Junction (T _A = 85°C, V _{DD} = 5 V, I _{DQ} = 85 mA)	108

¹ See the Ordering Guide for more information.

Stresses at or above those listed under Absolute Maximum Ratings may cause permanent damage to the product. This is a stress rating only; functional operation of the product at these or any other conditions above those indicated in the operational section of this specification is not implied. Operation beyond the maximum operating conditions for extended periods may affect product reliability.

THERMAL RESISTANCE

Thermal performance is directly linked to system design and operating environment. Careful attention to the PCB thermal design is required.

θ_{JC} is the channel to case thermal resistance, channel to bottom of die using die attach epoxy.

Table 6. Thermal Resistance

Package Type	θ _{JC}	Unit
CE-24-2 ¹	54.3	°C/W

¹ θ_{JC} was determined by simulation under the following conditions: the heat transfer is due solely to thermal conduction from the channel, through the ground paddle, to the PCB, and the ground pad is held constant at the operating temperature of 85°C.

ELECTROSTATIC DISCHARGE (ESD) RATINGS

The following ESD information is provided for handling of ESD-sensitive devices in an ESD protected area only.

Human body model (HBM) per ANSI/ESDA/JEDDEC JS-001.

Table 7. HMC1126ACEZ, 24-Terminal LGA_CAV

ESD Model	Withstand Threshold (V)	Class
HBM	±250	1A

ESD CAUTION



ESD (electrostatic discharge) sensitive device. Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.