

HMC653LP2E | [Data Sheet](#)
**Qualification Summary:**

| STRESS TEST   | TEST CONDITIONS <sup>*1</sup>   | REFERENCE TEST METHOD                    | NUMBER OF LOTS | SAMPLE SIZE PER LOT | RESULTS                                       |
|---|---|--|----------------|---------------------|---|
| High-Temperature Operating Life (HTOL)                | $T_J \geq 125^\circ\text{C}$ , 1000 hrs   | JESD22-A108                              | 3              | 77                  | Pass  |
| High-Temperature Storage Life (HTSL)                  | $T_A \geq 150^\circ\text{C}$ , 1000 hrs   | JESD22-A103                              | 3              | 25                  | Pass  |
| MSL Preconditioning                                   | Per MSL   | J-STD-020<br>JESD22-A113                 | —              | —                   | Classification                                |
| Temperature Cycling (TC)                              | $-65^\circ\text{C}$ to $+150^\circ\text{C}$ , 500 cycles  | JESD22-A104                              | 3              | 25                  | Pass  |
| Temperature Humidity Bias (THB) or Biased HAST (HAST) | $85^\circ\text{C}/85\%\text{RH}$ , 1000 hrs or $130^\circ\text{C}/85\%\text{RH}$ , 96 hrs, respectively | JESD22-A101 or JESD22-A110, respectively | 3              | 25                  | Pass  |
| Autoclave (AC) or Unbiased HAST (UHAST)               | $121^\circ\text{C}/100\%\text{RH}$ , 96 hrs or $130^\circ\text{C}/85\%\text{RH}$ , 96 hrs, respectively | JESD22-A102, JESD22-A118, respectively   | 3              | 25                  | Pass  |
| ESD Human Body Model (HBM)                            | $T_A = 25^\circ\text{C}$  | JS-001                                   | 1              | 3                   | See Data Sheet/<br><a href="#">Contact Us</a> |
| ESD Charge Device Model (CDM)                         | $T_A = 25^\circ\text{C}$  | JS-002                                   | 1              | 3                   | See Data Sheet/<br><a href="#">Contact Us</a> |
| Latch-Up  | Per JESD78  | JESD78                                   | 1              | 3                   | Pass  |

1. Or equivalent JEDEC conditions

For FIT/MTTF estimates, visit [FIT/MTTF](#)

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