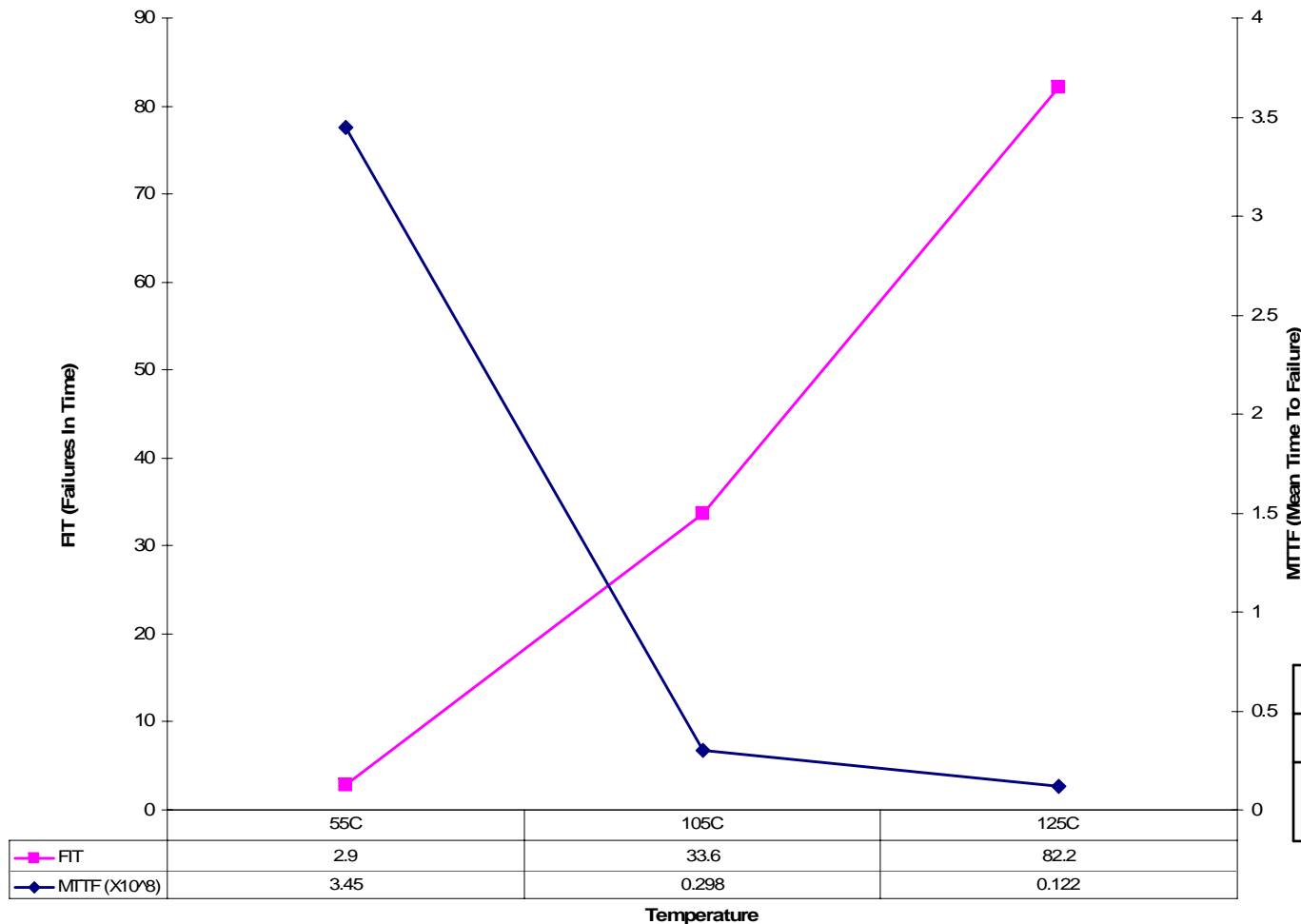


# TLK3134 Operating Conditions

- TLK3134 maximum long term operating junction temperature is **105C**
  - All datasheet electrical performance parameters are met
  - TI reliability requirements are also guaranteed (including FIT rate and MTTF). TI requirement is 100,000 POH (Power On Hours) at a FIT rate of 33 or less.
- TLK3134 maximum short term operating junction temperature between **105C** and **125C**:
  - All datasheet electrical performance parameters are met (timing closed with acceptable margin)
  - Device reliability is degraded from TI standardized reliability requirements, where the FIT rate becomes 82.2, with a MTTF of  $.122 \times 10^8$  hours (please see graph on following page).

# TLK3134 FIT & MTTF –vs- Junction Temp

FIT and MTTF vs. T (Junction)



## MTTF

Mean Time To Failure  
Units of Time (10<sup>8</sup> Hours)

## FIT

Failures In Time  
# of Failures/10<sup>9</sup> POH

## POH

Power On Hours

### TLK3134

Tjunc	55C	105C	125C
FIT	2.9	33.6	82.2
MTTF (X10 <sup>8</sup> )	3.45	0.298	0.122

Additional Junction temperature margin below 105C is not required for device reliability.