The alternative Temperature Measurement

Applications

- Automotive
  - Dashboard
  - Airconditioner
- Home Appliances
  - Watertemperature in Washing Machines, Dish Washer
  - Fridges, Freezers
- Airconditioner
  - System and Room Temperature
- Communications
  - Ink Jet Printer: Print Head Temperature
  - Fan Control
- Industry
  - Power Supply
  - Over Temperature Protection
  - Temperature Compensation

Features

- Silicon based temperature sensitive resistor with positive temperature coefficient
- Fast response
- Excellent long time stability
- Linear output
- High reliability due to silicon based construction
- Polarity independent due to symmetrical construction
- ±1% and ±3% resistance tolerance R_{25}
- Temperature range -50 to +150°C (-60 to 300 F)
- Two resistance types: R_{25} = 1 KΩ and 2 KΩ

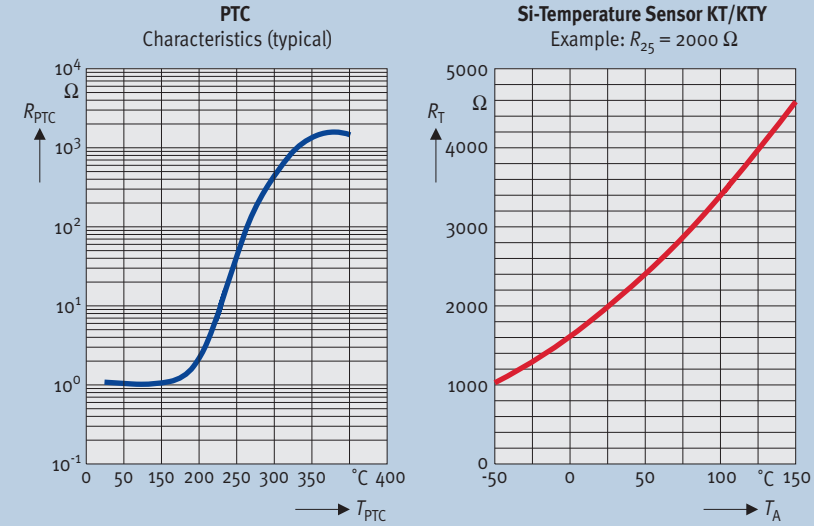
KT/KTY-Series

KT/KTY-Series

Miniature Silicon based Temperature Sensors

Infineon technologies

Never stop thinking.



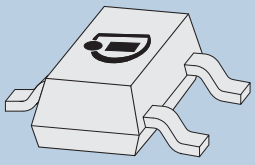
Silicon Based Temperature Sensors Vs. Thermistors

Why not Silicon Sensors instead of PTC Thermistors? Quite simple, KT-Series sensors have excellent long-term stability, have a linear characteristic, have a resistance tolerance at 25°C of 1% or ±3% and are available as a leaded or as an SMD component! Due to their small size they are space saving and have a fast response time. Not only are they technologically superior devices, but they are semi-conductor devices sharing production synergies with standard electronic components, giving true Low-cost benefits to the user!

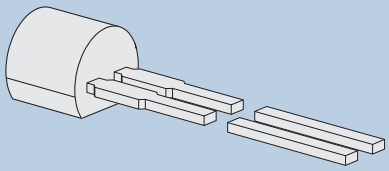
Resistance	Tolerance	SOT-23	Sales Code	TO-92 Mini	Sales Code
1970	±1%	KTY13-5	Q62705-K249	KTY11-5	Q62705-K245
2000	±1%	KTY13-6	Q62705-K250	KTY11-6	Q62705-K246
2030	±1%	KTY13-7	Q62705-K251	KTY11-7	Q62705-K247
970	±1%	KTY23-5	Q62705-K262	KTY21-5	Q62705-K258
1000	±1%	KTY23-6	Q62705-K263	KTY21-6	Q62705-K259
1030	±1%	KTY23-7	Q62705-K264	KTY21-7	Q62705-K260
2000	±3%	KT130	Q62705-K333	KT110	Q62705-K332
1000	±3%	KT230	Q62705-K335	KT210	Q62705-K334

Temperature sensing has in the past predominantly been the domain of PTC Thermistors. Infineon Technologies offers with the KT-Series Silicon Temperature Sensor a cost competitive alternative.

TO-92 Mini is a package specially designed for our KT-Series Temperature sensors. Its compact size results in a significantly lower thermal mass which gives a greatly improved response time. As a leaded component it lends itself ideally for further fabrication into temperature sensor probes of greatly reduced diameter, so sensor housings can be made physically smaller, again improving the thermal response time.



SOT-23



TO-92 Mini

How to reach us:
http://www.infineon.com

Infineon Technologies AG
Richard-Strauss-Strasse 76
81679 München
Tel. (+49) 89-92 21 40 86
Fax (+49) 89-92 21 20 71

Infineon Technologies (AP) Pte Ltd
25 New Industrial Road
Singapore 536211
Tel. (+65) 8-40 05 91
Fax (+65) 8-40 00 76

Infineon Technologies Corp.
Suite 112, Sensors Marketing Group
21800 Haggerty Rd.
NORTHVILLE, (MI) 48167
Tel. (+1) 2 48-3 74 08 90
Fax (+1) 2 48-3 74 25 01

Published by
Infineon Technologies AG,
St.-Martin-Strasse 53,
81541 München

Attention please!
The information herein is given to describe certain components and shall not be considered as warranted characteristics.
Terms of delivery and rights to technical change reserved.
We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.
Infineon Technologies is an approved CECC manufacturer.

Information
For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide.

Warnings
Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Ordering No. B000-H0000-X-X-7600
Printed in Germany
PS 00010. NB

Published by Infineon Technologies AG