

# Application

- Automotive
- USB3.1
- Wearable
- Healthcare

Murata Manufacturing Co., Ltd.  
Thermistor and Variable Products Dept

Doc No. DM-T18-M5 (English)





# Murata Thermistor for Automotive



## HEV/PHEV/EV

**E** • Pump Temp.Sensing

NC\*

PRF

**D** EPS ECU Temp.sensing

NC\*

**C** HVAC Inverter Temp.sensing

NC\*

**B** BMS Circuit protection

PTGL

**A** • Battery ,BMS ,Charger Temp.sensing

• Circuit protection

NC\*

PRF

NX\*

PRG

**F** D/D Converter Temp.sensing

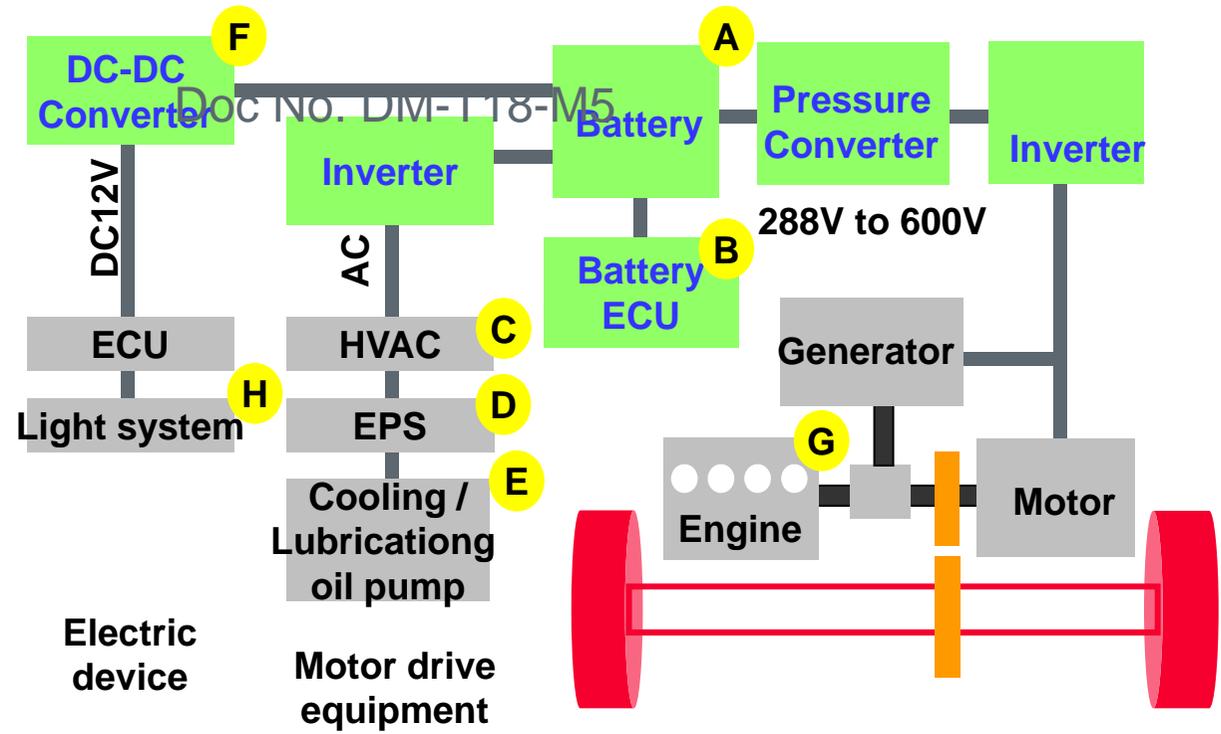
NC\*

**G** • ECU Temp.sensing

NC\*

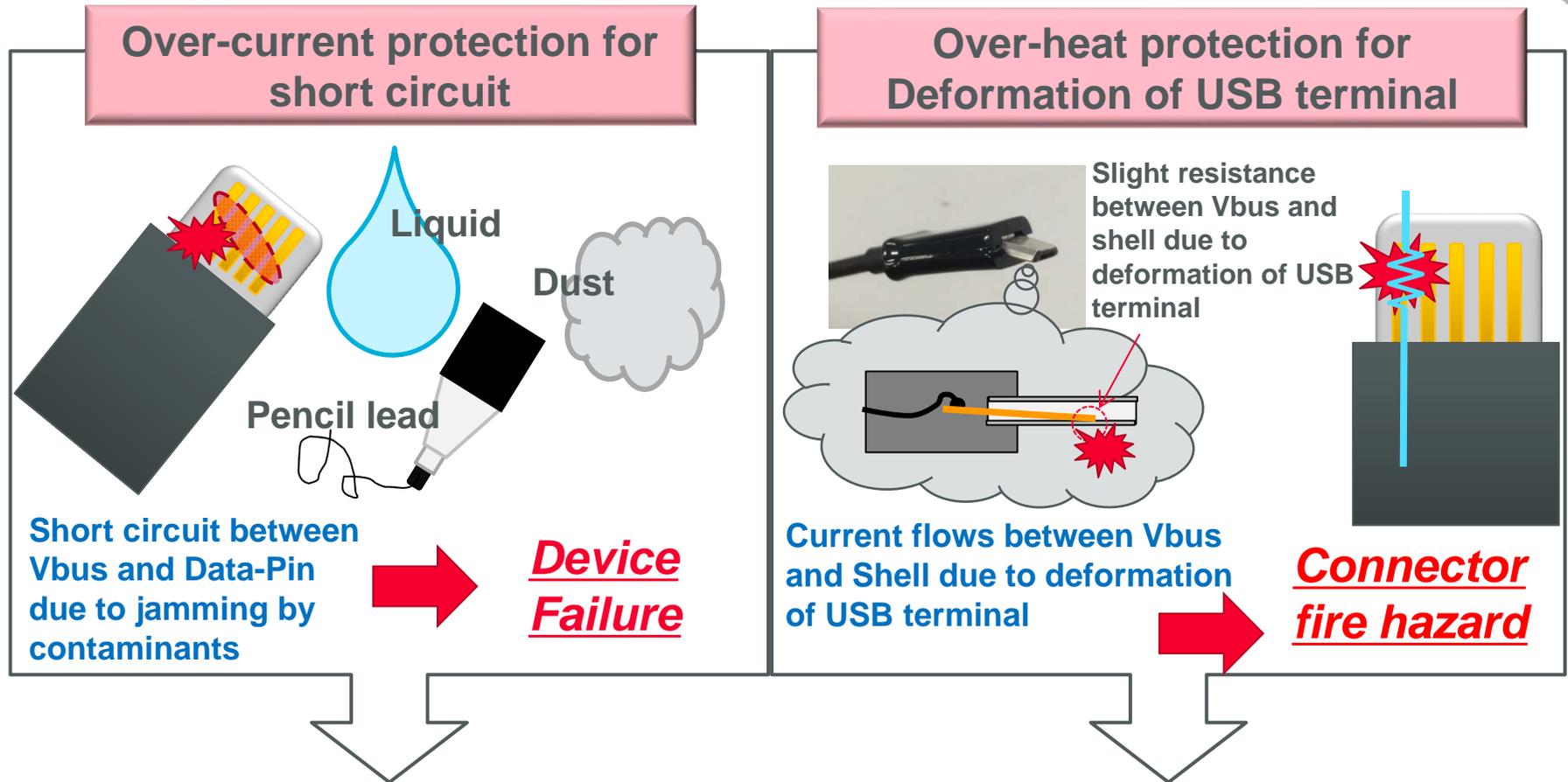
**H** • LED Light Temp.sensing

NC\*



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# Murata Thermistor(Over-heat and Over-current protection) for USB3.1, USB-PD, USB-Type C



★ **Resettable Fuse**  
“PRG Series”

- 0805 size
- 0603 size
- 0402 size

- ✓ High Reliability
- ✓ Non thermal runaway
- ✓ No miss-operation for ESD

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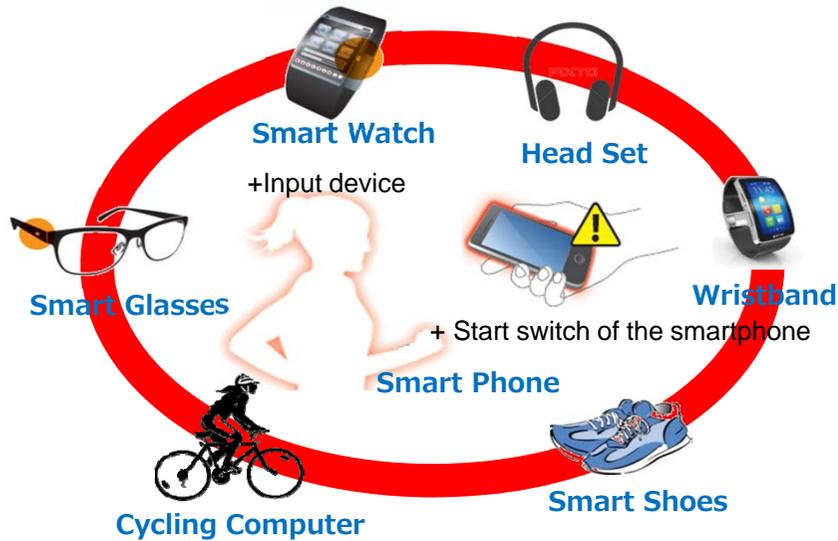
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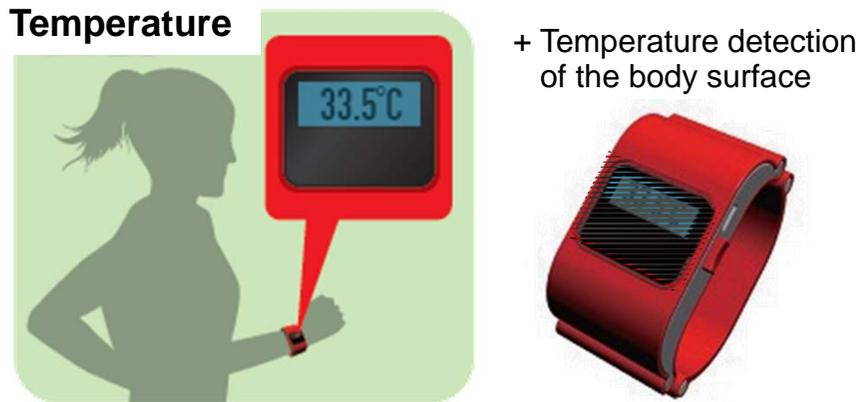
18 March 2019 3

# Murata Thermistor for wearable application

## Clumsy touch panel !



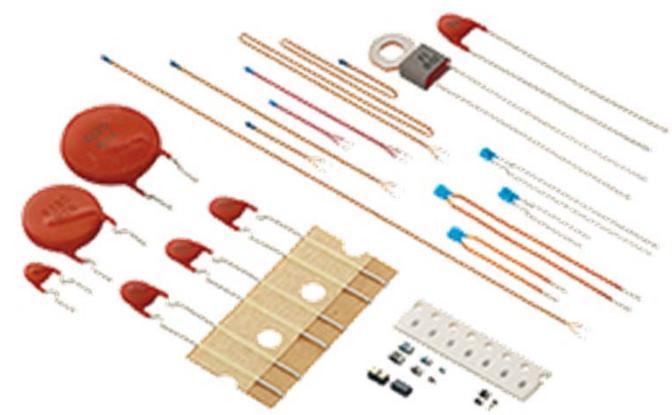
## Measure and Record !



## Flat Thin head Insulated Temperature Sensor for Temperature Detection



## Thermistor for Temperature Detection



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# Murata Thermistor for healthcare application



**Measuring temperature**

**Temperature compensation**

**Heating**

Beauty instrument

**Temperature detecting by NTC temperature sensor**

**NC\* series**      **NXF series**      **FTN series**

**NC\* series**

**Micro Heater**

**FTP series**

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