

## INTAKE AIR TEMPERATURE (IAT) SENSOR [SKYACTIV-D 2.2]

id0140z7007100

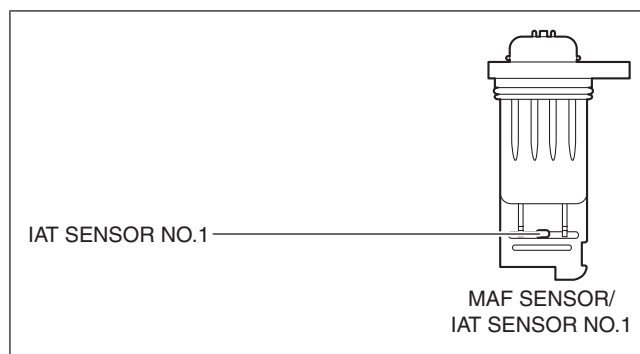
### IAT Sensor No.1

#### Purpose/Function

- Detects the intake air temperature after it passes through the air cleaner as basic information for mainly determining the fuel injection amount.
- Detects the intake air temperature after it passes through the air cleaner and sends it to the PCM as an intake air temperature signal.

#### Construction

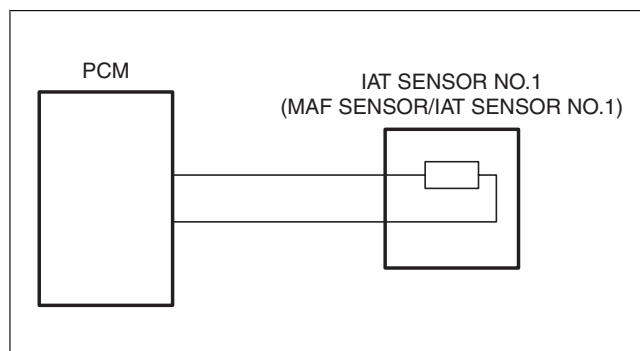
- Built into the MAF sensor.
- A thermistor has been adopted as the detecting element for detecting the IAT.



ac5wzn00002559

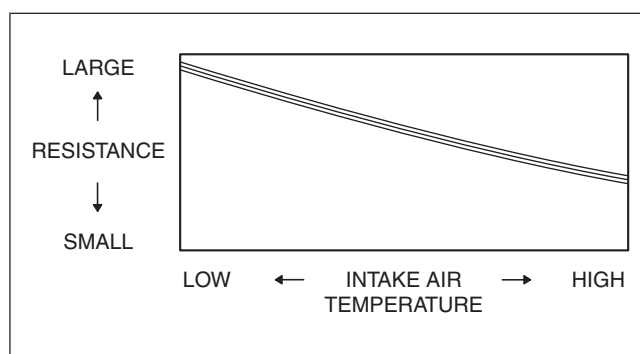
#### Operation

- Sends the signal, which fluctuates according to the IAT after passing through the air cleaner, to the PCM.



ac5wzn00001624

### IAT sensor No.1 characteristic



ac5wzn00002560

### Fail-safe

DTC No.	Fail-safe function
P0112:00	<ul style="list-style-type: none"><li>• PCM restricts engine torque.</li><li>• Inhibits the two-stage turbo control.</li><li>• Inhibits the EGR control.</li><li>• Inhibits the diesel particulate filter regeneration control.</li><li>• The fast idle up correction for the idle speed control is inhibited.</li><li>• Inhibits engine-stop by operating the i-stop function.</li><li>• PCM restricts engine-transaxle integration control.</li></ul>

DTC No.	Fail-safe function
P0113:00	<ul style="list-style-type: none"> <li>• PCM restricts engine torque.</li> <li>• Inhibits the two-stage turbo control.</li> <li>• Inhibits the EGR control.</li> <li>• Inhibits the diesel particulate filter regeneration control.</li> <li>• The fast idle up correction for the idle speed control is inhibited.</li> <li>• Inhibits engine-stop by operating the i-stop function.</li> <li>• PCM restricts engine-transaxle integration control.</li> </ul>

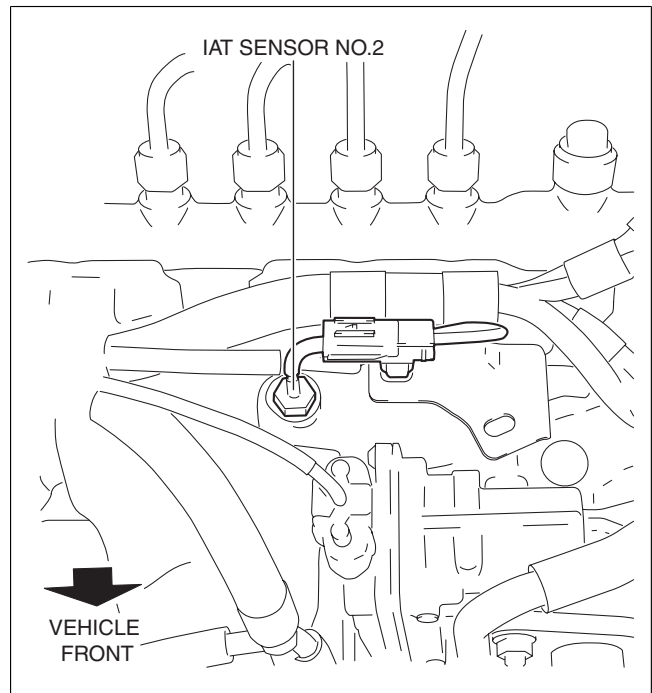
## IAT Sensor No.2

### Purpose/Function

- Detects the IAT (in intake manifold) as basic information for mainly determining the fuel injection amount.
- Detects the IAT (in intake manifold) and sends it to the PCM as an intake air temperature signal.

### Construction

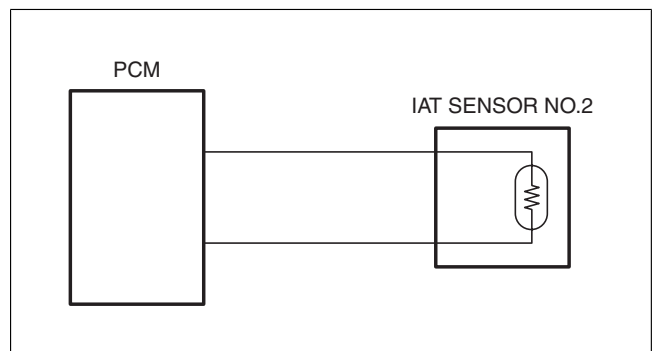
- Installed on the intake manifold.
- A thermistor has been adopted as the detecting element for detecting the IAT.



ac5wzn00001626

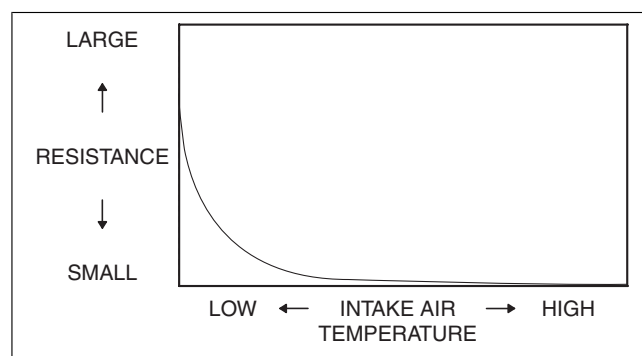
### Operation

- Sends the signal, which fluctuates according to the IAT in the intake manifold, to the PCM.



ac5wzn00002561

## IAT sensor No.2 characteristic



ac5wzn00002562

## Fail-safe

DTC No.	Fail-safe function
P0097:00	<ul style="list-style-type: none"><li>• Inhibits the EGR control.</li><li>• Inhibits engine-stop by operating the i-stop function.</li><li>• PCM restricts engine-transaxle integration control.</li></ul>
P0098:00	<ul style="list-style-type: none"><li>• Inhibits the EGR control.</li><li>• Inhibits engine-stop by operating the i-stop function.</li><li>• PCM restricts engine-transaxle integration control.</li></ul>