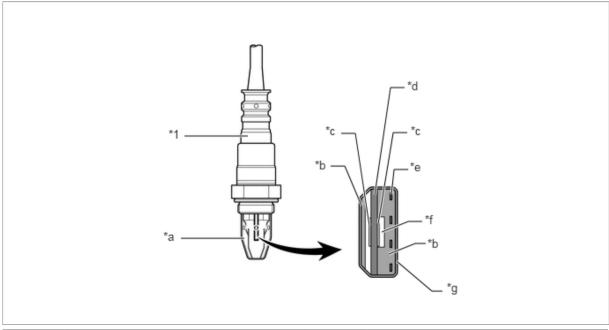
Print Exit

## 6AR-FSE ENGINE CONTROL SFI SYSTEM DETAILS AIR FUEL RATIO SENSOR

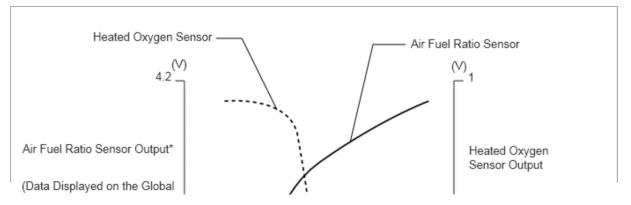
## **CONSTRUCTION**

- **a.** A planar type air fuel ratio sensor is used.
- b. The planar type air fuel ratio sensor uses alumina, which excels in heat conductivity and electrical insulation, to integrate a sensor element with a heater, thus improving the warm-up performance of the sensor.

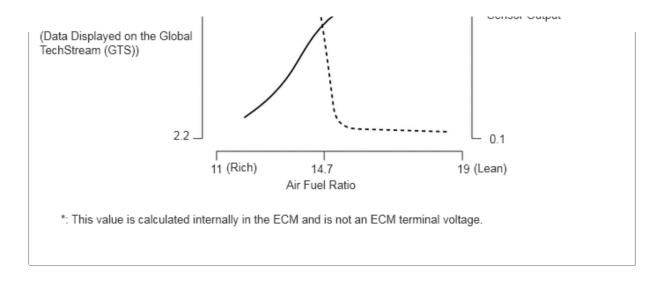


*1	Air Fuel Ratio Sensor (Planar Type)	-	-
*a	Cover	*b	Alumina
*c	Platinum Electrode	*d	Sensor Element (Zirconia)
*e	Heater	*f	Atmosphere
*g	Coating (Ceramic)	-	-

c. As illustrated below, a conventional heated oxygen sensor is characterized by a sudden change in its output voltage at the threshold of the stoichiometric air fuel ratio (14.7:1). In contrast, the air fuel ratio sensor data is approximately proportionate to the existing air fuel ratio. The air fuel ratio sensor converts the oxygen density into a voltage signal and sends it to the ECM. As a result, the detection precision of the air fuel ratio has been improved. Air fuel ratio sensor data can be viewed using the Global TechStream (GTS).



1 of 2 3/30/2021, 1:24 PM



© 2012 TOYOTA MOTOR CORPORATION. All Rights Reserved.

2 of 2