

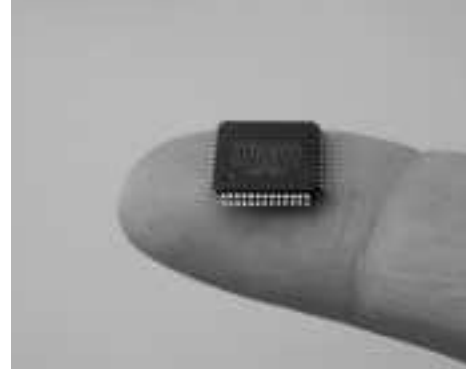
Smartcoder®

AU6802

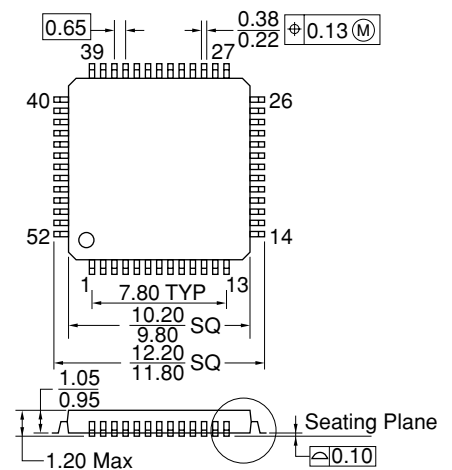
**High-speed, Digital-Tracking, Complete Angle Detector
10/12-Bit Resolver-to-Digital Converter IC**

■ Features

- (1) Vehicle-mount quality
 - * Quality level : Transportation equipment involved with safety
 - * Operating temperature range : $-40 \sim +125^{\circ}\text{C}$
- (2) High accuracy
- (3) Simple to use
 - * Real time output (High tracking rate : 240,000 rpm for 10 bit resolution)
 - * Single power supply of DC5V (Integrated oscillator for exciting resolver : 10/20 kHz)
 - * Small size and light weight (10 × 10mm, Pin interval : 0.65mm, 52pins TQFP, Mass. 0.3gram)
 - * Built-in test (Abnormality detection) function
 - * Pulse / Parallel / Bus serial output (Selectable)
 - * Resolution of 10/12 bits (Selectable)
 - * Capable to set the number of poles for UVW (Selectable from × 1, 2, 3, 4)
 - * Clock input (20MHz) : External CLK input / Crystal resonator / Ceramic resonator (Selectable)



■ Outline



■ Specifications

Resolution	1,024 (=2 ¹⁰)	4,096 (=2 ¹²)	For 1 revolution of electric angle
Conversion Accuracy	±2LSB	±4LSB (Sorting)	As static absolute accuracy in electric angle
		±8LSB (Standard)	
Settling time	0.5 ms	2 ms	For step input of 179° in electric angle
Tracking rate	4,000s ⁻¹ (240,000rpm)	1,000s ⁻¹ (60,000rpm)	As maximum tracking rate in electric angle
Response	±0.2° max. / 10,000rpm	±0.4° max. / 10,000rpm	As output response delay in electric angle
2 phase pulse signal	256 C/T	1,024 C/T	
Source dissipation	DC 5V ±5% 45mA Max (30mA Typ.)		
Operating temperature	-40 ~ +125°C		
Storage temperature	-65 ~ +150°C		
Humidity	90%RH Max		
Mass	1g Max		

