

SG33BL

GENERAL SPECIFICATION

Manufactured with
hitechnology



	SG33BL-S-12V	SG33BL-T-12V
Operating Voltage Range	9.0 V ~ 15.0 V	
Test Voltage	AT 12.0 V	AT 12.0V
No Load Speed	0.15 sec / 60° (400°/sec)	0.15 sec / 60° (320°/sec)
Rated Torque	18.35 kgf·cm (1.8N·m)	24.47 kgf·cm (2.4N·m)
Peak Torque	110.12 kgf·cm (10.8N·m)	146.84 kgf·cm (14.4N·m)
Control Signal	PWM // RS-485 // TTL (Half Duplex)	
Operating Travel	PWM : Standard : ±60°±0.5 Optional : ±160°±0.5	
Multi Turn	Optional : Max ±8 Turn (±2880°)	
Motor Type	Brushless	
Position Type	Contactless	

MECHANICAL FEATURES

Dimensions	64.0 x 33.0 x 95.0mm (±0.2mm) / (2.52 x 1.30 x 3.74in)
Weight	400g (±10%)
Housing	Rugged Aluminum Alloy
Gear Reduction	Durable Hardened Steel with Gear Protection System
Ball Bearing	2 Ball Bearing & 2 Needle Bearing
Gear Train Backlash	< 0.5°
Slip Clutch Release Momentum	>Peak torque +20%

ENVIRONMENTAL SPECIFICATIONS

Operation Temperature	-30°C (-22°F) +70°C (+158°F)	MIL-STD-810G Method 502.5
Storage Temperature	-40°C (-40°F) +80°C (+176°F)	
Humidity	95% @35°C ~ 60°C @300hours	
Water & Dust Protected	IP68	IEC 60529
Variation	Orthogonal Axes : ±X, ±Y, ±Z from 50 ~ 500Hz Duration : Sweep 5min Acceleration 30G Displacement : 5mm	MIL-STD-810G 514.6C-VII EN 60068-2-6
Mechanical Shock	Procedure 1 - Functional shock 20g, 11ms, Sawtooth Waveform	MIL-STD-810G 516.6
EMC	-	CISPR 16-1,2 IEC 61000-4-2,4,6
MTBF	>500h	Test Condition Load : 20% of Max Torque 0.5Hz sweep(±60)