



08G61 **** .3

Electrical Data	****	107	205C	
1 Nominal Voltage	V	3	9	Volt
2 No-Load Speed	n_0	9,780	11,760	rpm
3 No-Load Current	I_0	6.0	2.5	mA
4 Terminal Resistance	R	11.8	54.0	Ω
5 Output Power	$P_{2max.}$	0.6	0.7	W
6 Stall Torque	mNm	0.73 (0.11)	1.2 (0.17)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	72	77	%
8 Max continuous speed	$n_{e max.}$	12,000	12,000	rpm
9 Max continuous torque	$M_{e max.}$	0.8 (0.14)	0.95 (0.14)	mNm (oz-in)
10 Max continuous current	$I_{e max.}$	0.29	0.13	A
11 Back-EMF Constant	k_E	0.30	0.75	mV/rpm
12 Torque Constant	k_M	2.86	7.20	mNm/A
13 Motor Regulation	R/k^2	1,440.0	1,040.0	$10^3/Nms$
14 Friction Torque	T_F	0.02 (0.01)	0.02 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	0.03	0.16	mH
16 Mechanical Time Constant	τ_m	5.0	3.6	ms
17 Rotor Inertia	J	0.04	0.04	g.cm ²
18 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}	18/85	18/85	$^{\circ}C/W$
19 Thermal Time Constant (rotor/stator)	τ_{w1}/τ_{w2}	5/100	5/100	$^{\circ}C/W$
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)		$^{\circ}C (^{\circ}F)$
	rotor	100°C (212°F)		$^{\circ}C (^{\circ}F)$
21 Shaft Load max.:		With sleeve bearings		
at 3,000 rpm (2 mm from bearing)	-radial	0.5 (1.8)		N (oz)
at 3,000 rpm	-axial	30 (107.9)		N (oz)
22 Shaft play:	-radial	<0.015 (0.0006)		mm (inch)
	-axial	0.100 (0.0039)		mm (inch)
23 Weight	g	4.6 (0.17)		g (oz)

Execution	
Gearbox	Single Shaft
R10	5
MR2	Contact Us

Max. Recommended Speed

