

TABLE 1. ELECTRICAL TESTS

TEST	Symbol	CONDITIONS -55 °C ≤ T _A ≤ +125°C V _S =+15V, V _D =-15V, GND=0V Unless otherwise specified	Group A Subgroup	Device type	Limits Min	Limits Max	Units
SWITCH							
Analog-Signal Range	V _{ANALOG}	V _S =±15V	1,2,3	All	-15	15	V
Drain-Source ON Resistance	r _{DS(ON)}	I _S =1mA, V _D =10V, V _{IN} =0.8V	1,3 2	01		175 250	Ω
Drain-Source ON Resistance	r _{DS(ON)}	I _S =1mA, V _D =-10V, V _{IN} =0.8V	1,3 2	01		175 250	Ω
Drain-Source ON Resistance	r _{DS(ON)}	I _S =1mA, V _D =10V, V _{IN} =2.4V	1,3 2	02		175 250	Ω
Drain-Source ON Resistance	r _{DS(ON)}	I _S =1mA, V _D =-10V, V _{IN} =2.4V	1,3 2	02		175 250	Ω
Source OFF Leakage Current	I _{S(OFF)}	V _S =+/-14V, V _D =-/+14V, V _{IN} =2.4V	1 2,3	01	-1 -100	1 100	nA
Source OFF Leakage Current	I _{S(OFF)}	V _S =+/-14V, V _D =-/+14V, V _{IN} =0.8V	1 2,3	02	-1 -100	1 100	nA
Drain OFF Leakage Current	I _{D(OFF)}	V _S =+/-14V, V _D =-/-14V, V _{IN} =2.4V	1 2,3	01	-1 -100	1 100	nA
Drain OFF Leakage Current	I _{D(OFF)}	V _S =+/-14V, V _D =-/+14V, V _{IN} =0.8V	1 2,3	02	-1 -100	1 100	nA
Drain ON Leakage Current	I _{D(ON)}	V _D =V _S =±14V, V _{IN} =0.8V	1 2,3	01	-2 -200	2 200	nA
Drain ON Leakage Current	I _{D(ON)}	V _D =V _S =±14V, V _{IN} =2.4V	1 2,3	02	-2 -200	2 200	nA
INPUT							
Input Current/Voltage High	I _{INH}	V _{IN} = 2.4V	1,2,3	All	-1		μA
		V _{IN} =15V	1,3 2	All		1 10	
Input Current/Voltage Low	I _{INL}	V _{IN} =0V	1,3 2	All	-1 -10		μA
SUPPLY							
Positive Supply Current	I ₊	All channels on or off	1,2 3	All		0.5 1.0	mA
Negative Supply Current	I ₋	All channels on or off	1,3 2	All	-10 -100		μA
DYNAMIC							
Turn ON time	t _{ON}	Figure 1	9 10,11	All		600 1000	ns
Turn OFF time	t _{OFF}	Figure 1	9 10,11	All		450 650	ns

FIGURE 1: SWITCHING TIME TEST CIRCUIT: See Commercial Data Sheet

TRUTH TABLE				TERMINAL CONNECTION		
Device Type	Logic	Switch		TERMINAL NUMBER	DG201A & DG202	DG201A & DG202
01	0	ON			J16 & F16	L20
01	1	OFF		1	IN ₁	NC
02	0	OFF		2	D ₁	IN ₁
02	1	ON		3	S ₁	D ₁
				4	V-	S ₁
				5	GND	V-
				6	S ₄	NC
				7	D ₄	GND
ORDERING	Information			8	IN ₄	S ₄
01	DG201AAK	/883B		9	IN ₃	D ₄
01	DG201AAL	/883B		10	D ₃	IN ₄
01	DG201AAZ	/883B		11	S ₃	NC
02	DG202AK	/883B		12	NC	IN ₃
				13	V+	D ₃
				14	S ₂	S ₃
				15	D ₂	NC
				16	IN ₂	NC
				17		V+
				18		S ₂
				19		D ₂
				20		IN ₂

QUALITY ASSURANCE

Sampling and inspection procedures shall be in accordance with MIL-Prf-38535, Appendix A as specified in Mil-Std-883.

Screening shall be in accordance with Method 5004 of Mil-Std-883. Burn-in test Method 1015:

1. Test Condition, A, B, C, or D.
2. TA = +125°C minimum.
3. Interim and final electrical test requirements shall be specified in Table 2.

Quality conformance inspection shall be in accordance with Method 5005 of Mil-Std-883, including Groups A, B, C, and D inspection.

Group A inspection:

1. Tests as specified in Table 2.
2. Selected subgroups in Table 1, Method 5005 of Mil-Std-883 shall be omitted.

Group C and D inspections:

- a. End-point electrical parameters shall be specified in Table 1.
- b. Steady-state life test, Method 1005 of Mil-Std-883:
 1. Test condition A, B, C, D.
 2. TA = +125°C, minimum.
 3. Test duration, 1000 hours, except as permitted by Method 1005 of Mil-Std-883.

TABLE 2. ELECTRICAL TEST REQUIREMENTS

Mil-Std-883 Test Requirements	Subgroups per Method 5005, Table 1
Interim Electric Parameters Method 5004	1
Final Electrical Parameters Method 5005	1*, 2, 3, 9
Group A Test Requirements Method 5005	1, 2, 3, 9, 10**, 11**
Group C and D End-Point Electrical Parameters Method 5005	1

* PDA applies to Subgroup 1 only.

** Subgroups 10 and 11, if not tested shall be guaranteed to the limits of Table 1.