

TABLE 1 ELECTRICAL TESTS

PARAMETER	Symbol	CONDITIONS -55 °C ≤ T <sub>A</sub> ≤ +125°C 2/ V <sup>+</sup> =5V, C1, C2=150μF, FC=open Unless otherwise specified	Group A Subgroup	Device type	Limits Min	Limits Max	Units
Operating Supply Voltage		R <sub>L</sub> =1kΩ, Inverter, LV=open R <sub>L</sub> =1kΩ, Inverter, LV=GND R <sub>L</sub> =1kΩ, Doubler, LV=OUT	1,2,3	01	3.0 1.5 2.5	8.0 8.0 8.0	V
Supply Current		No Load, FC=open No Load, FC=V <sup>+</sup>	1,2,3	01		0.5 3.0	mA
Output Current		OUT more negative than -4V OUT more negative than -3.8V	1,3 2	01	100		mA
Output Resistance NOTE 3		I <sub>L</sub> =100mA	1,3 2	01		10 12	Ω
Power Efficiency		R <sub>L</sub> =1kΩ connected between V <sup>+</sup> and OUT R <sub>L</sub> =500Ω connected between OUT and GND	1,2,3 1,2,3	01	96 92		%
Voltage Conversion Efficiency		No Load	1,2,3	01	99		%
Power Efficiency		I <sub>L</sub> =100mA to GND NOTE 4	TYPICAL	01	88		%
Oscillator Frequency		FC=open NOTE 4 FC=V <sup>+</sup> NOTE 4	TYPICAL	01	10 45		kHz
OSC Input Current		FC=open NOTE 4 FC=V <sup>+</sup> NOTE 4	TYPICAL	01	±1.1 ±5.0		μA

NOTE 2: In the test circuit, capacitors C1 and C2 are 150μF, 0.2Ω maximum ESR, aluminum electrolytics (Maxim part # MAXC001). Capacitors with higher ESR may reduce output voltage and efficiency.

NOTE 3: Specified output resistance is a combination of internal switch resistance and capacitor ESR.

NOTE 4: Characteristics supplied for use as a typical design limit but not production tested.

ORDERING INFORMATION		
01	J8	MAX665MJA/883B

TERMINAL NUMBER	01
1	FC
2	CAP+
3	GND
4	CAP-
5	OUT
6	LV
7	OSC
8	V <sup>+</sup>

## 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
Group A Test Requirements Method 5005	1, 2, 3
Group C and D End-Point Electrical Parameters Method 5005	1

\* PDA applies to Subgroup 1 only.

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