

1N5806-HR SCREENING PROCEDURE

All 1N5806-HR procured shall be 100% screened in accordance with the following procedures, as applicable. Unless otherwise noted, all testing is performed at room temperature.

REFERENCE: MIL-PRF-19500/477K

TEST/PROCESS		SPEC/METHOD	CONDITIONS
1	Temperature Cycle	MIL-STD-750/Method 1051	Condition C, 10 cycles from -55°C to +175°C. Minimum 10 minute dwell at each extreme.
2	Thermal Impedance	MIL-STD-750/Method 3101	Per paragraph 4.3.1. Data by attributes.
3	HTRB	MIL-STD-750/Method 1038	Condition A. $T_A = 150^\circ\text{C}$ minimum. Apply $V_R = 120\text{ Vdc}$ for 48 hours. ***24 hour test window applies***
4	Impact Ambient	MIL-PRF-19500/477	$T_A = 25^\circ\text{C}$. Test V_{F1} and I_{R1} . Read and record for delta calculations.
5	Burn-in	MIL-STD-750/Method 1038	Per paragraph 4.3.2. Condition B. $I_O = 1\text{ A}$ minimum. $T_A = 55^\circ\text{C}$ maximum. $t = 96\text{ hours}$ minimum. Adjust I_O or T_A to achieve $T_J = 135^\circ\text{C}$ minimum. ***96 hour test window applies***
6	Impact Ambient	MIL-PRF-19500/477	$T_A = 25^\circ\text{C}$. Test Group A, Subgroup 2. Read and record for delta calculations.
7	Delta Calculations	MIL-PRF-19500/477	Delta I_{R1} shall be 100% of initial reading or 250 nA maximum. Delta V_{F1} shall be 0.05 Vdc maximum.
8	Curve Tracer	MIL-STD-750/Method 4023	Perform scope display evaluation per paragraph 4.5.2. Reverse current over the knee shall be 500 uA peak.



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9	PDA Calculation	MIL-PRF-19500	Calculate PDA. 10% maximum for burn-in and post burn-in electrical test failures.
10	Gross Leak	MIL-STD-750/Method 1071	No bubbles present.