

ELECTRICAL CHARACTERISTICS⁽¹⁾⁽²⁾ (continued)

Parameter	Conditions ⁽¹⁾		Min	Typ	Max	Units
VOLTAGE REFERENCE						
Output Voltage	0.1 mA ≤ I _{L(REF)} ≤ 4 mA, V ⁺ = V _{LED} = 5V		1.2	1.28	1.34	V
Line Regulation	3V ≤ V ⁺ ≤ 18V			0.01	0.03	%/V
Load Regulation	0.1 mA ≤ I _{L(REF)} ≤ 4 mA, V ⁺ = V _{LED} = 5V			0.4	2	%
Output Voltage Change with Temperature	0°C ≤ T _A ≤ +70°C, I _{L(REF)} = 1 mA, V ⁺ = 5V			1		%
Adjust Pin Current				75	120	μA
OUTPUT DRIVERS						
LED Current	V ⁺ = V _{LED} = 5V, I _{L(REF)} = 1 mA		7	10	13	mA
LED Current Difference (Between Largest and Smallest LED Currents)	V _{LED} = 5V	I _{LED} = 2 mA		0.12	0.4	mA
		I _{LED} = 20 mA		1.2	3	
LED Current Regulation	2V ≤ V _{LED} ≤ 17V	I _{LED} = 2 mA		0.1	0.25	mA
		I _{LED} = 20 mA		1	3	
Dropout Voltage	I _{LED(ON)} = 20 mA, V _{LED} = 5V, ΔI _{LED} = 2 mA				1.5	V
Saturation Voltage	I _{LED} = 2.0 mA, I _{L(REF)} = 0.4 mA			0.15	0.4	V
Output Leakage, Each Collector	(Bar Mode) ⁽⁴⁾			0.1	10	μA
Output Leakage	(Dot Mode) ⁽⁴⁾	Pins 10–18		0.1	10	μA
		Pin 1	60	150	450	μA
SUPPLY CURRENT						
Standby Supply Current (All Outputs Off)	V ⁺ = 5V, I _{L(REF)} = 0.2 mA			2.4	4.2	mA
	V ⁺ = 20V, I _{L(REF)} = 1.0 mA			6.1	9.2	mA

(4) Bar mode results when pin 9 is within 20mV of V^+ . Dot mode results when pin 9 is pulled at least 200mV below V^+ or left open circuit. LED No. 10 (pin 10 output current) is disabled if pin 9 is pulled 0.9V or more below V_{LED} .