

Table 4. Electrical characteristics of L78L05C - Refer to the test circuits, $T_J = 0$ to $125\text{ }^{\circ}\text{C}$, $V_I = 10\text{ V}$, $I_O = 40\text{ mA}$, $C_I = 0.33\text{ }\mu\text{F}$, $C_O = 0.1\text{ }\mu\text{F}$ unless otherwise specified

Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
V_O	Output voltage	$T_J = 25\text{ }^{\circ}\text{C}$	4.6	5	5.4	V
V_O	Output voltage	$I_O = 1$ to 40 mA , $V_I = 7$ to 20 V	4.5		5.5	V
		$I_O = 1$ to 70 mA , $V_I = 10\text{ V}$	4.5		5.5	
ΔV_O	Line regulation	$V_I = 8.5$ to 20 V , $T_J = 25\text{ }^{\circ}\text{C}$			200	mV
		$V_I = 9$ to 20 V , $T_J = 25\text{ }^{\circ}\text{C}$			150	
ΔV_O	Load regulation	$I_O = 1$ to 100 mA , $T_J = 25\text{ }^{\circ}\text{C}$			60	mV
		$I_O = 1$ to 40 mA , $T_J = 25\text{ }^{\circ}\text{C}$			30	
I_d	Quiescent current	$T_J = 25\text{ }^{\circ}\text{C}$			6	mA
		$T_J = 125\text{ }^{\circ}\text{C}$			5.5	mA
ΔI_d	Quiescent current change	$I_O = 1$ to 40 mA			0.2	mA
		$V_I = 8$ to 20 V			1.5	
eN	Output noise voltage	$B = 10\text{ Hz}$ to 100 kHz , $T_J = 25\text{ }^{\circ}\text{C}$		40		μV
SVR	Supply voltage rejection	$V_I = 9$ to 20 V , $f = 120\text{ Hz}$ $I_O = 40\text{ mA}$, $T_J = 25\text{ }^{\circ}\text{C}$	40	49		dB
V_d	Dropout voltage			2		V