

## Three Terminal Regulator 78LXXS

### FEATURES

- Maximum Output current  $I_o$ : 0.1 A
- Output voltage  $V_o$ : 5 V
- Continuous total dissipation  $P_D$ : 0.35 W ( $T_a = 25$ )

### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0-125	°C
Storage Temperature Range	$T_{STG}$	-65-150	°C



### ELECTRICAL CHARACTERISTICS ( $V_i=10V, I_o=40mA, C_i=0.33 \mu F, C_o=0.1 \mu F, 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	$V_o$	$25^\circ C$	4.8	5.0	5.2	V	
		$0-125^\circ C$	$7V \leq V_i \leq 20V, I_o=1mA \sim 40mA$	4.75	5.0	5.25	V
			$I_o=1mA \sim 70mA$	4.75	5.0	5.25	V
Load Regulation	$\Delta V_o$	$I_o=1mA \sim 100mA, 25^\circ C$		15	60	mV	
		$I_o=1mA \sim 40mA, 25^\circ C$		8	30	mV	
Line regulation	$\Delta V_o$	$7V \leq V_i \leq 20V$		32	150	mV	
		$8V \leq V_i \leq 20V, 25^\circ C$		26	100	mV	
Quiescent Current	$I_q$	$25^\circ C$		3.8	6	mA	
Quiescent Current Change	$\Delta I_q$	$8V \leq V_i \leq 20V, 0-125^\circ C$			1.5	mA	
	$\Delta I_q$	$1mA \leq I_o \leq 40mA, 0-125^\circ C$			0.1	mA	
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz, 25^\circ C$		42		uV	
Ripple Rejection	RR	$8V \leq V_i \leq 20V, f=120Hz, 0-125^\circ C$	41	49		dB	
Dropout Voltage	$V_d$	$25^\circ C$		1.7		V	

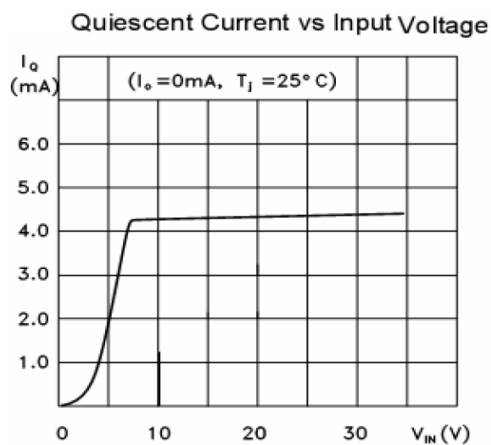
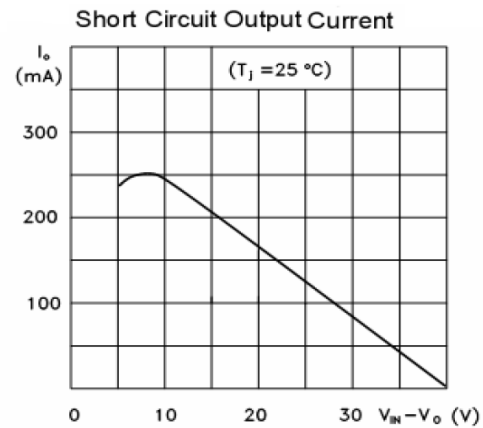
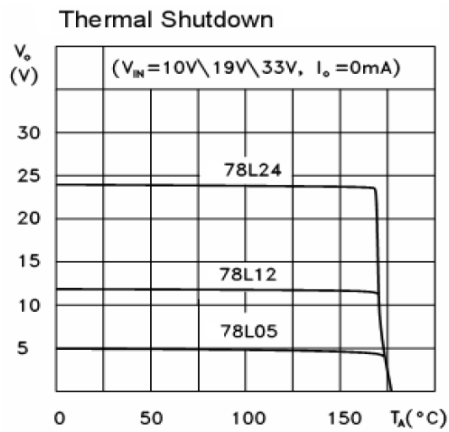
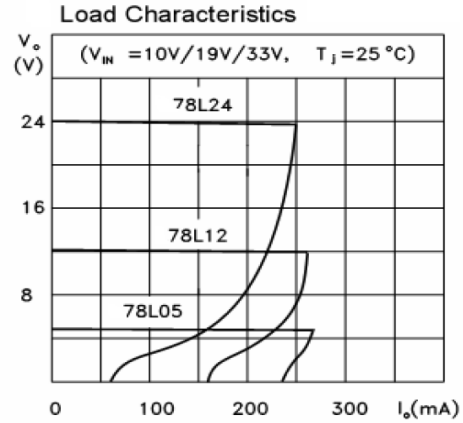
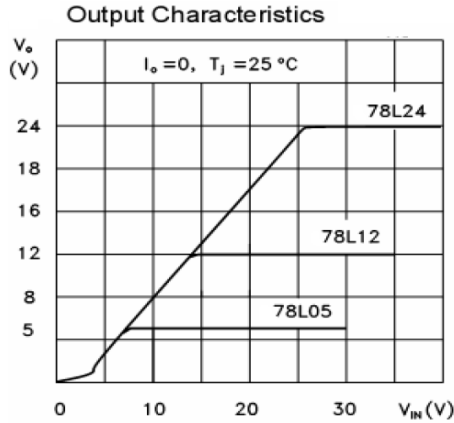
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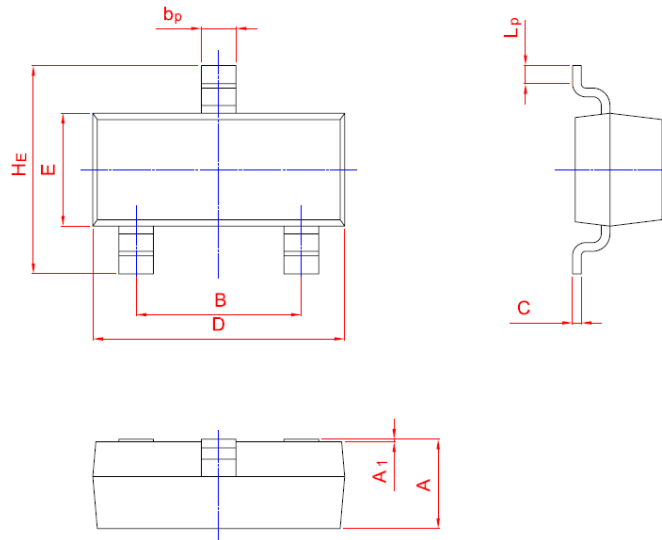
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## Typical Performance Characteristics



## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20

