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**78L12** Three-terminal positive voltage regulator

SOT-23 Encapsulate Three Terminal Voltage Regulator

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客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			



SOT-23 Encapsulate Three Terminal Voltage Regulator

**78L12** Three-terminal positive voltage regulator

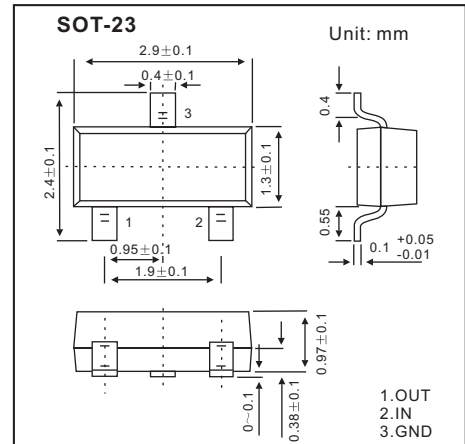
**FEATURES**

Maximum Output current

$I_{OM}$ : 0.1A

Output voltage

$V_o$ : 12 V



**ABSOLUTE MAXIMUM RATINGS ( Operating temperature range applies unless otherwise specified)**

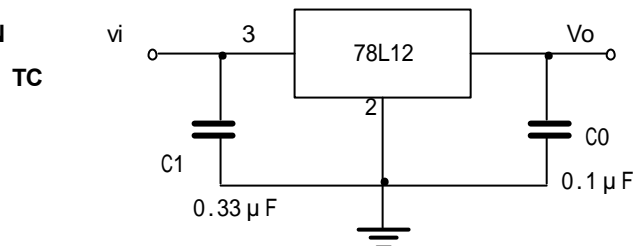
Parameter	Symbol	Value	Units
Input Voltage	$V_i$	35	V
Operating Junction Temperature Range	$T_{OPR}$	0—+125	
Storage Temperature Range	$T_{STG}$	-55—+150	

**UTC78L05 ELECTRICAL CHARACTERISTICS**

( $V_i=19V, I_o=40mA, 0 < T_j < 125$  ,  $C_1=0.33 \mu F, C_o=0.1 \mu F$  , unless otherwise specified )

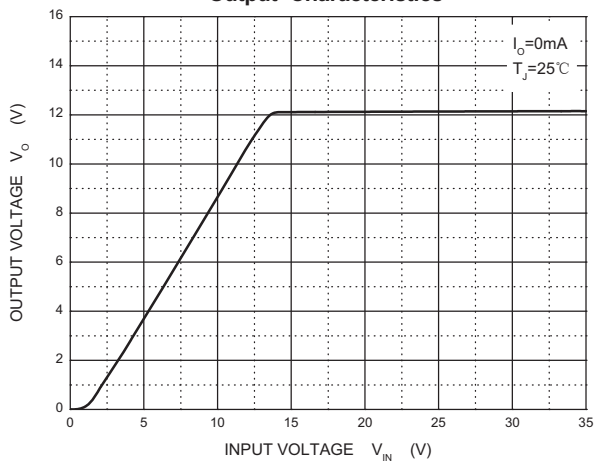
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j=25$	11.5	12	12.5	V
		14.5V $V_i$ 27V, $I_o=1mA-40mA$	11.4	12	12.6	V
		14.5V $V_i$ 27V, $I_o=1mA-70mA$	11.4	12	12.6	V (note)
Load Regulation	$V_o$	$T_j=25$ , $I_o=1mA-100mA$		22	100	mV
		$T_j=25$ , $I_o=1mA-40mA$		13	50	mV
Line regulation	$V_o$	14.5V $V_i$ 27V, $T_j=25$		55	250	mV
		16V $V_i$ 27V, $T_j=25$		49	200	mV
Quiescent Current	$I_q$			4.3	6.5	mA
Quiescent Current Change	$I_q$	16V $V_i$ 27V			1.5	mA
	$I_q$	1mA $I_o$ 40mA			0.1	mA
Output Noise Voltage	$V_n$	10Hz f 100KHz		70		$\mu V$
Ripple Rejection	RR	15V $V_i$ 25V, f=120Hz, $T_j=25$	37	42		dB
Dropout Voltage	$V_d$	$T_j=25$		1.7		V

**TYPICAL APPLICATION**

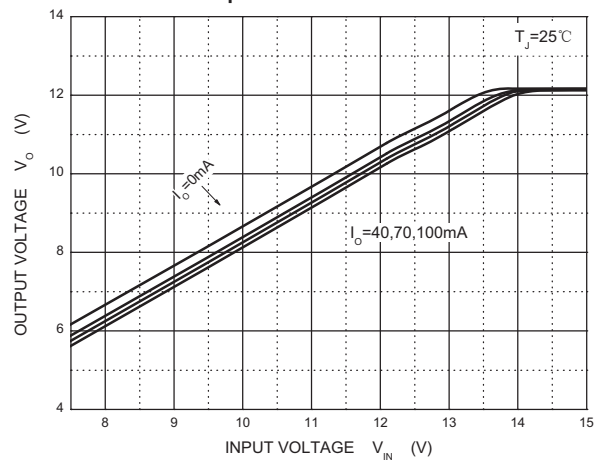


# Typical Characteristics

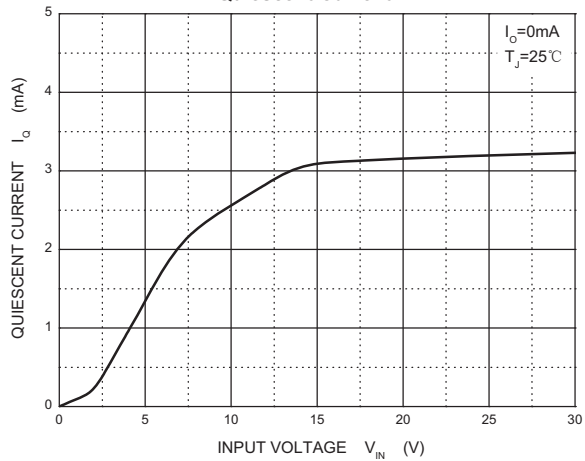
**Output Characteristics**



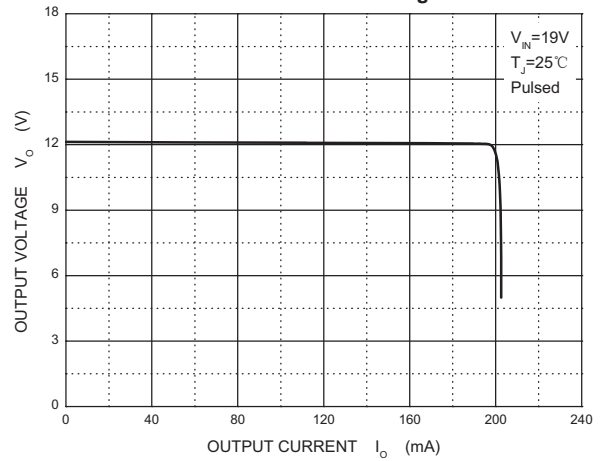
**Dropout Characteristics**



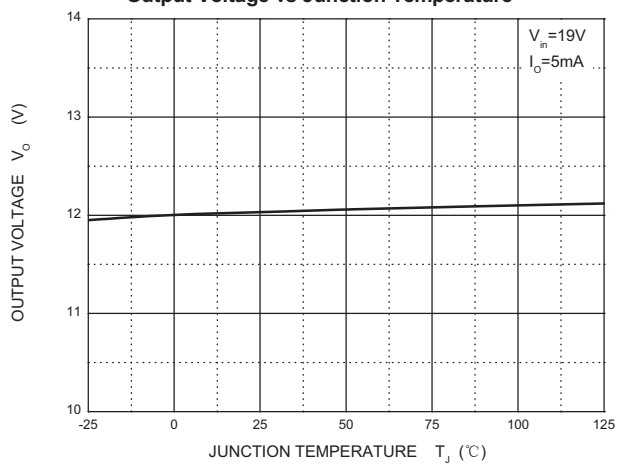
**Quiescent Current**



**Current Cut-off Grid Voltage**



**Output Voltage vs Junction Temperature**



**Power Derating Curve**

