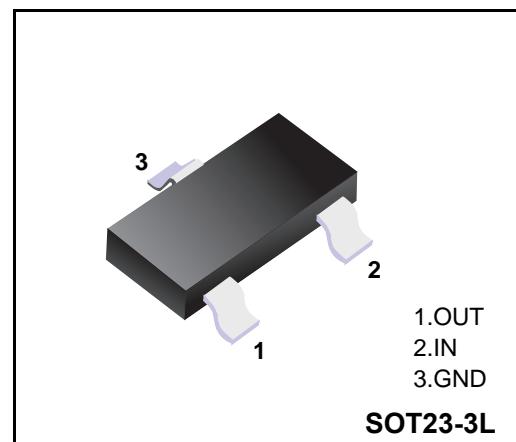


3-Terminal Voltage Regulator

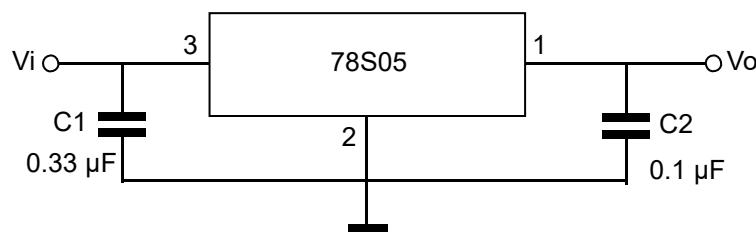
Features

- Input voltage: up to 30V
- Output: 5V
- Output current up to 200 mA, internal thermal
- Overload protection and short-circuit current limiting.



Absolute Maximum Ratings (Ta=25°C)

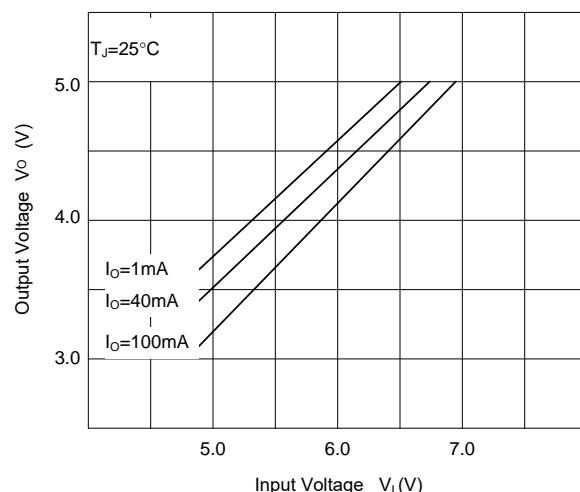
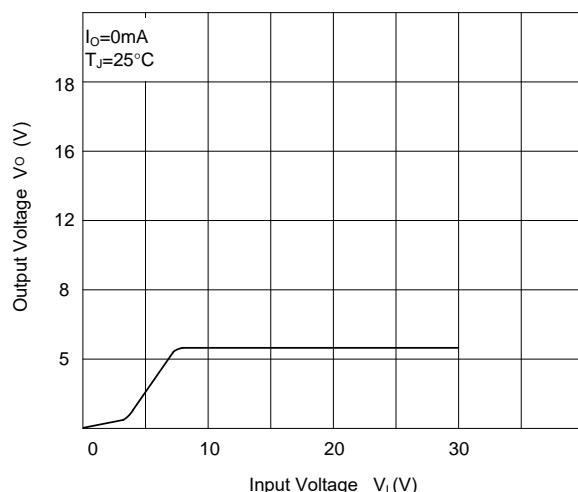
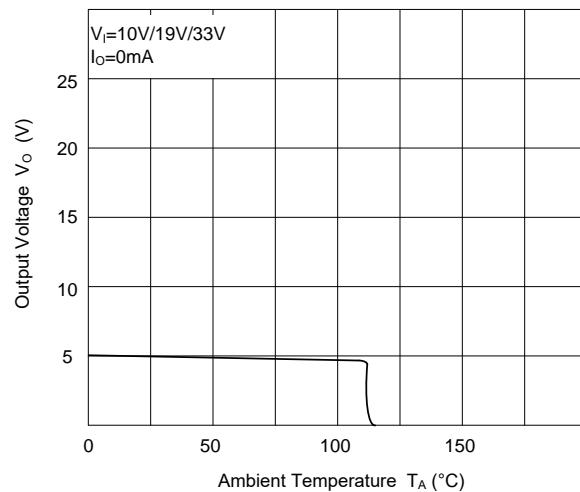
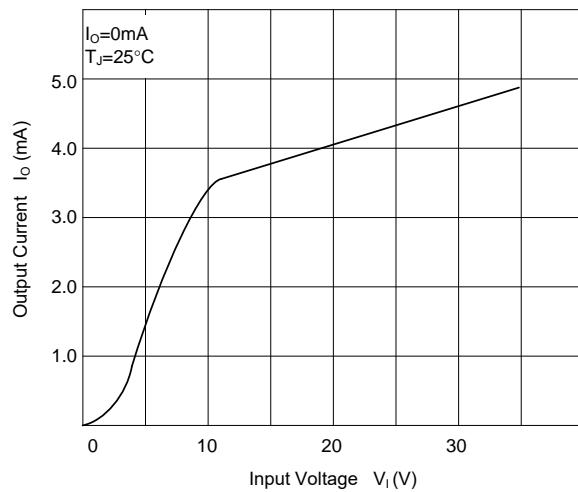
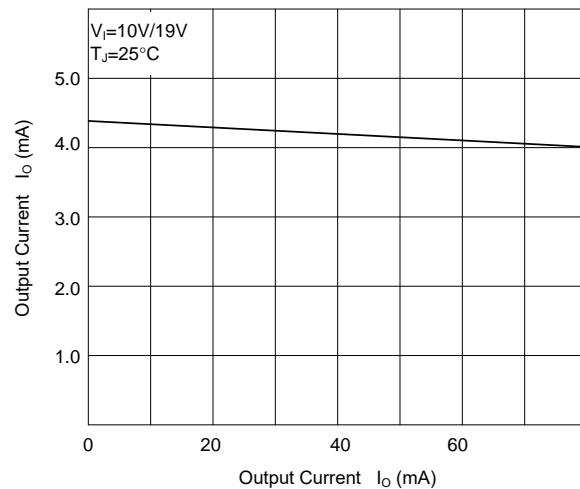
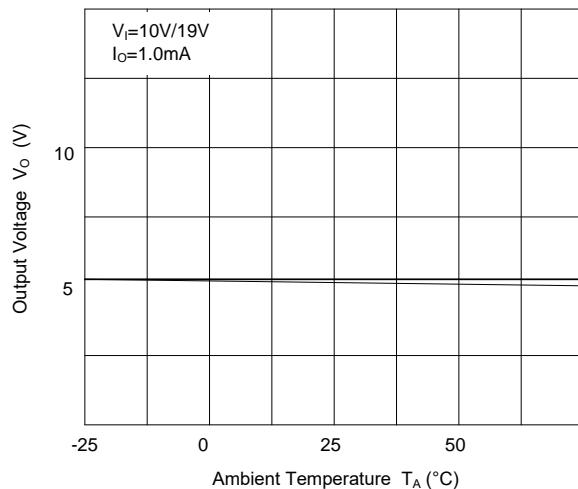
Parameter	Symbol	Value	Unit
Input Voltage	V _I	30	V
Output Current	I _O	200	mA
Maximum Power Dissipation	P _D	400	mW
Junction Temperature	T _J	150	°C
Operating Temperature Range	T _{OPR}	-40 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C



Electrical Characteristics(TA = 25 °C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_O	$T_J=25^\circ C$	4.80	5.0	5.2	V
		$I_O=1mA \text{ to } 40mA, V_I=7V \text{ to } 20V$	4.75	5.0	5.25	V
		$I_O=1mA \text{ to } 70mA, V_I=10V$	4.75	5.0	5.25	V
Line Regulation	ΔV_O	$V_I=7V \text{ to } 20V, T_J=25^\circ C$	--	8	150	mV
		$V_I=8V \text{ to } 20V, T_J=25^\circ C$		6	100	mV
Load Regulation	ΔV_O	$I_O=1mA \text{ to } 100mA, T_J=25^\circ C$	--	11	60	mV
		$I_O=1mA \text{ to } 40 mA, T_J=25^\circ C$		5	30	mV
Ripple Rejection	RR	$V_I=8V \text{ to } 20V, f=120Hz, T_J=25^\circ C$	40	49	--	dB
Dropout Voltage	V_D	$T_J=25^\circ C$	--	1.7	--	V
Quiescent Current	I_Q		--	2.0	5.5	mA
Quiescent Current Change	ΔI_Q	$V_I=8V \text{ to } 20V$	--	--	1.5	mA
		$I_O=1mA \text{ to } 40mA$	--	--	0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100kHz, T_J=25^\circ C$	--	40	--	μV

Typical Characteristics

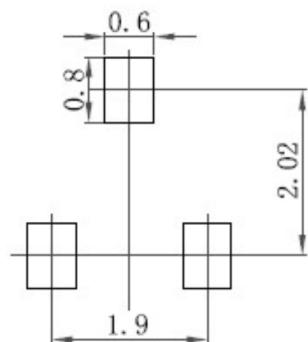


Package Dimensions

SOT23-3L

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	1.05	1.25	41	49.2
A1		0.10		3.93
A2	1.05	1.15	41	45
b	0.30	0.50	12	20
c	0.10	0.20	3.93	7.9
D	2.82	3.02	111	119
E	1.50	1.70	59	67
E1	2.65	2.95	104	116
e		0.95		37.4
e1	1.80	2.00	71	78
L	0.30	0.066	12	26
Θ	8°			

The recommended mounting pad size



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