

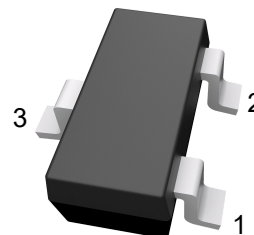
PJ78S05SC

3-Terminal Voltage Regulator

Features

- Input voltage: up to 35V
- Output voltage: 5V
- Output current up to 200 mA, internal thermal overload protection and short-circuit current limiting.

SOT-23-3



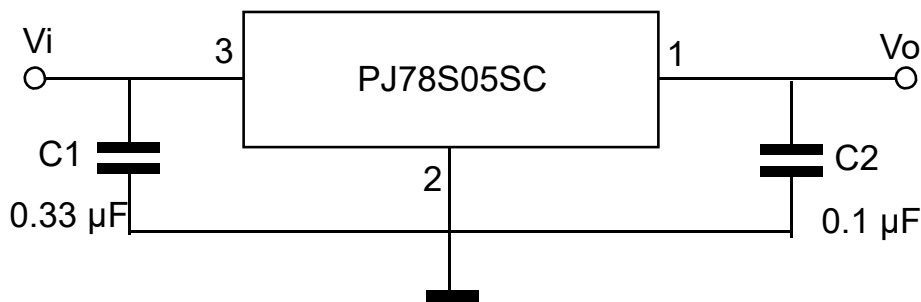
1. VOUT 2. GND 3. VIN

Marking Code : 78S05

Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	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





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Electrical Characteristics

$V_i=10V, I_o=40mA, 0 < T_J < 125^\circ C, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified.

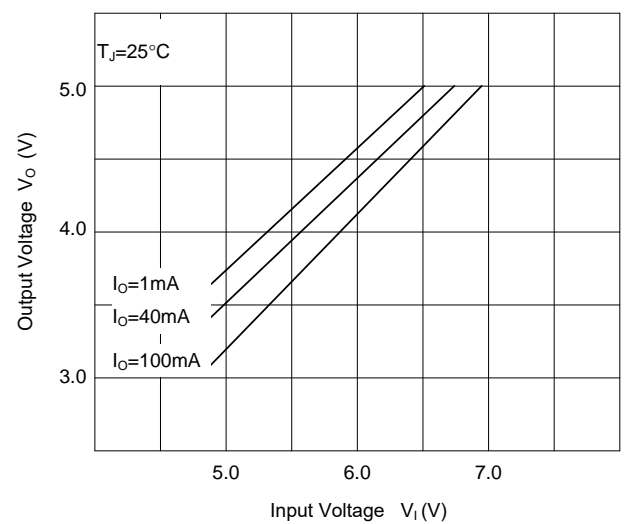
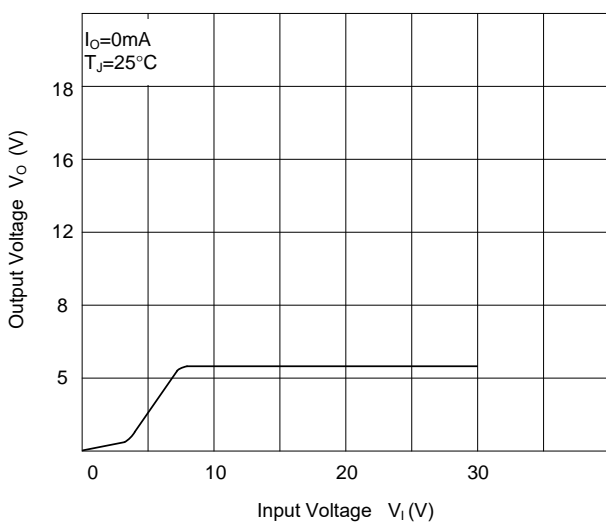
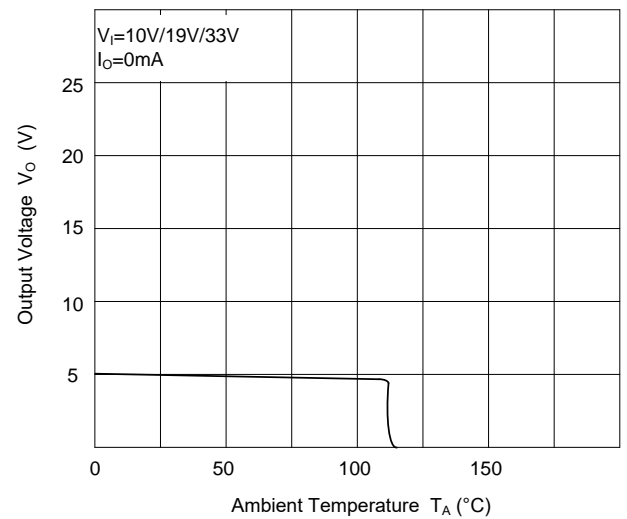
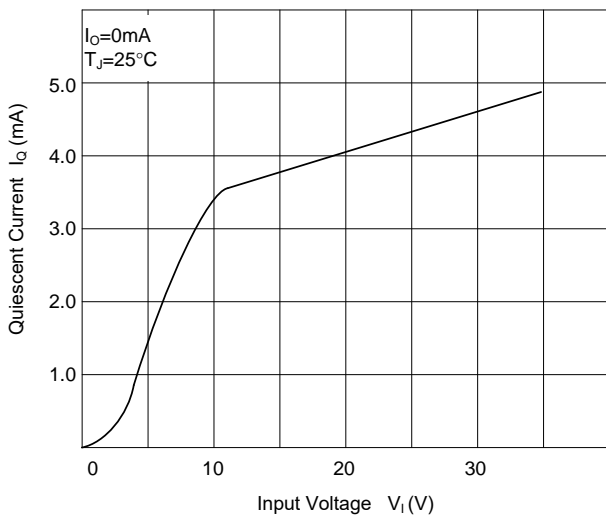
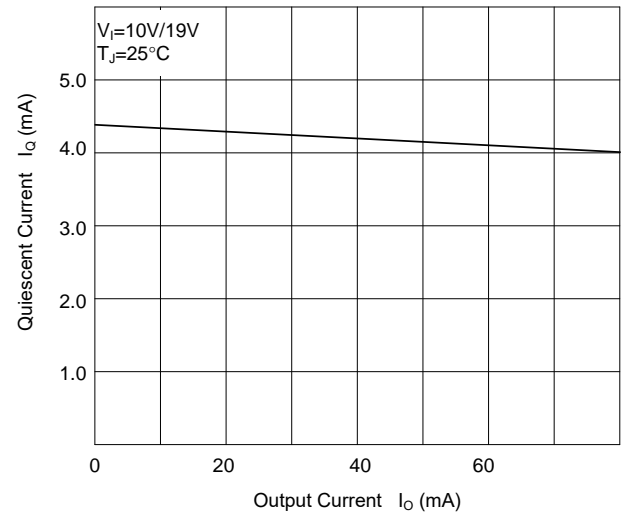
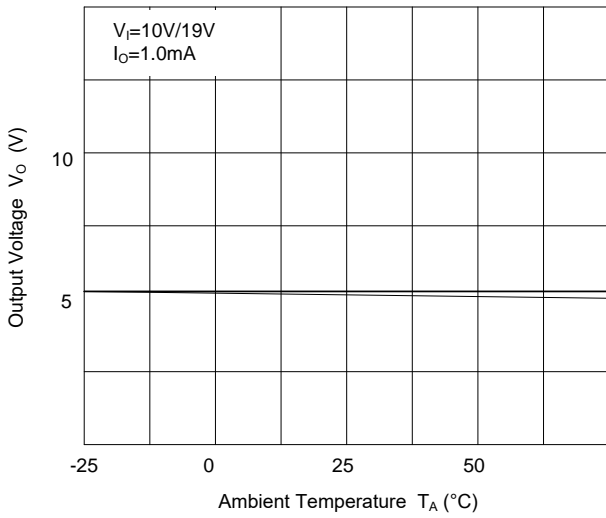
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_o	$T_J=25^\circ C$	4.80	5.0	5.2	V
		$I_o=1mA$ to 40mA, $V_i=7V$ to 20V	4.75	5.0	5.25	V
		$I_o=1mA$ to 70mA, $V_i=10V$	4.75	5.0	5.25	V
Line Regulation	ΔV_o	$V_i=7V$ to 20V, $T_J=25^\circ C$	--	8	150	mV
		$V_i=8V$ to 20V, $T_J=25^\circ C$	--	6	100	mV
Load Regulation	ΔV_o	$I_o=1mA$ to 100mA, $T_J=25^\circ C$	--	11	60	mV
		$I_o=1mA$ to 40 mA, $T_J=25^\circ C$	--	5	30	mV
Ripple Rejection	RR	$V_i=8V$ 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	$V_i=8V$ to 20V	--	--	1.5	mA
		$I_o=1mA$ to 40mA	--	--	0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100kHz$, $T_J=25^\circ C$	--	40	--	μV



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Typical Characteristic Curves





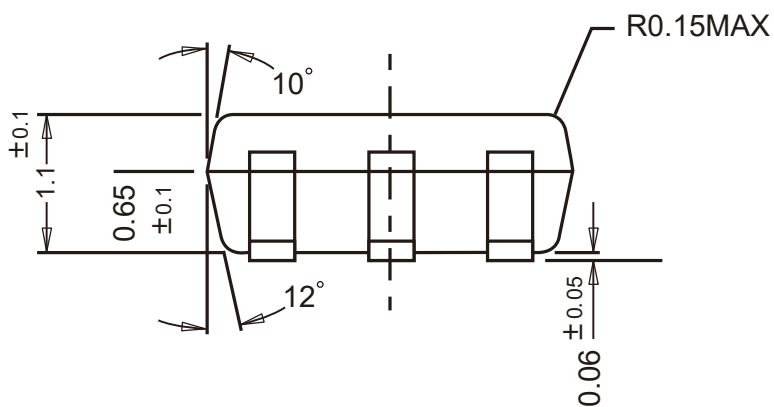
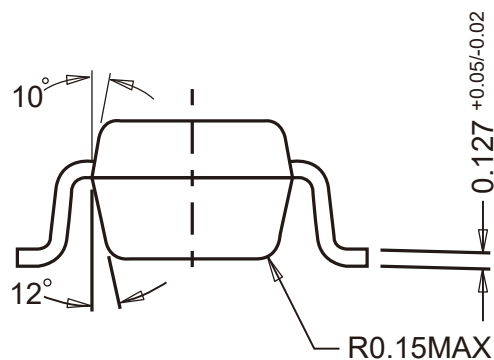
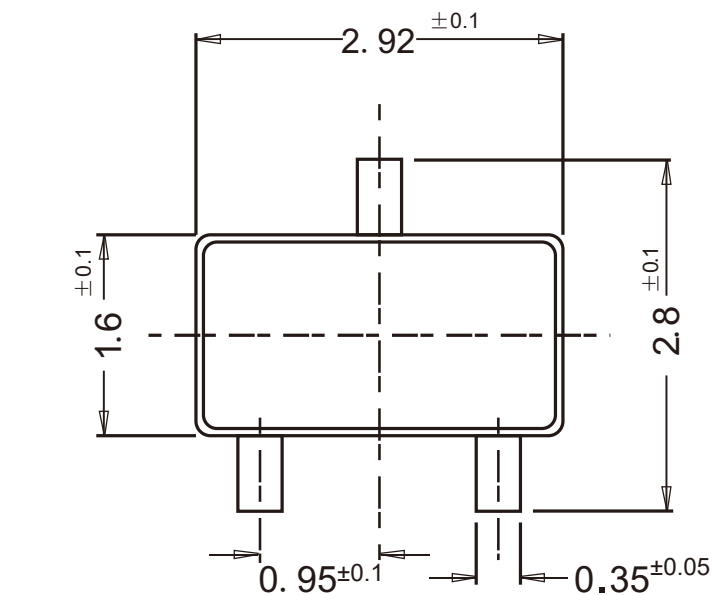
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3-Terminal Voltage Regulator

Package Outline

SOT-23-3

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ78S05SC	SOT-23-3	3,000PCS/Reel&7inches