



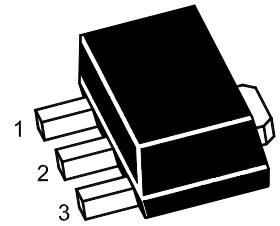
PJ78M05SQ

3-Terminal Voltage Regulator

Features

- Input voltage: up to 35V
- Output: 5V
- Output current up to 500 mA, internal thermal overload protection and short-circuit current limiting.

SOT-89



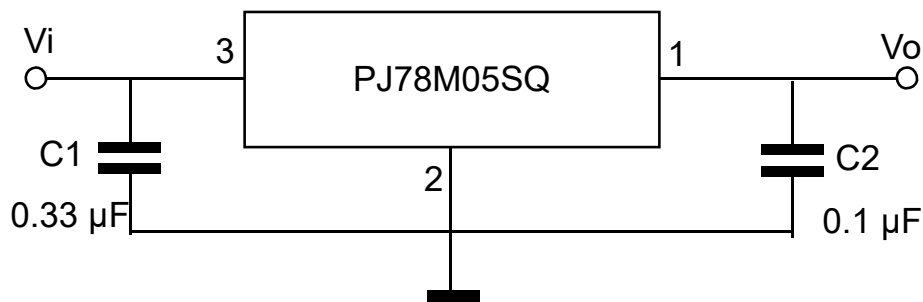
1. OUT 2. GND 3. IN

Marking Code : 78M05

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	500	mA
Maximum Power Dissipation	P_D	500	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

Ratings at $V_I=10V, I_O=300mA, C_I=0.33\mu F, C_O=0.1\mu F, T_J = 25^\circ C$, unless otherwise specified.

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_O		4.8	5.0	5.2	V
		$I_O=5mA$ to $350mA$, $V_I=7V$ to $20V$	4.75	5.0	5.25	V
Line Regulation	ΔV_O	$V_I=7V$ to $25V, I_O=200mA$	--	--	100	mV
		$V_I=8V$ to $25V, I_O=200mA$	--	--	50	mV
Load Regulation	ΔV_O	$I_O=5mA$ to $500mA, T_J=25^\circ C$	--	--	100	mV
		$I_O=5mA$ to $200mA, T_J=25^\circ C$	--	--	50	mV
Ripple Rejection	RR	$V_I=8V$ to $18V$, $f=120Hz, I_O=300mA$	62	--	--	dB
Dropout Voltage	V_D		--	2	--	V
Quiescent Current	I_Q		--	--	6	mA
Quiescent Current Change	ΔI_Q	$V_I=8V$ to $25V, I_O=200mA$	--	--	0.8	mA
		$I_O=5mA$ to $350mA$	--	--	0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	--	40	--	μV



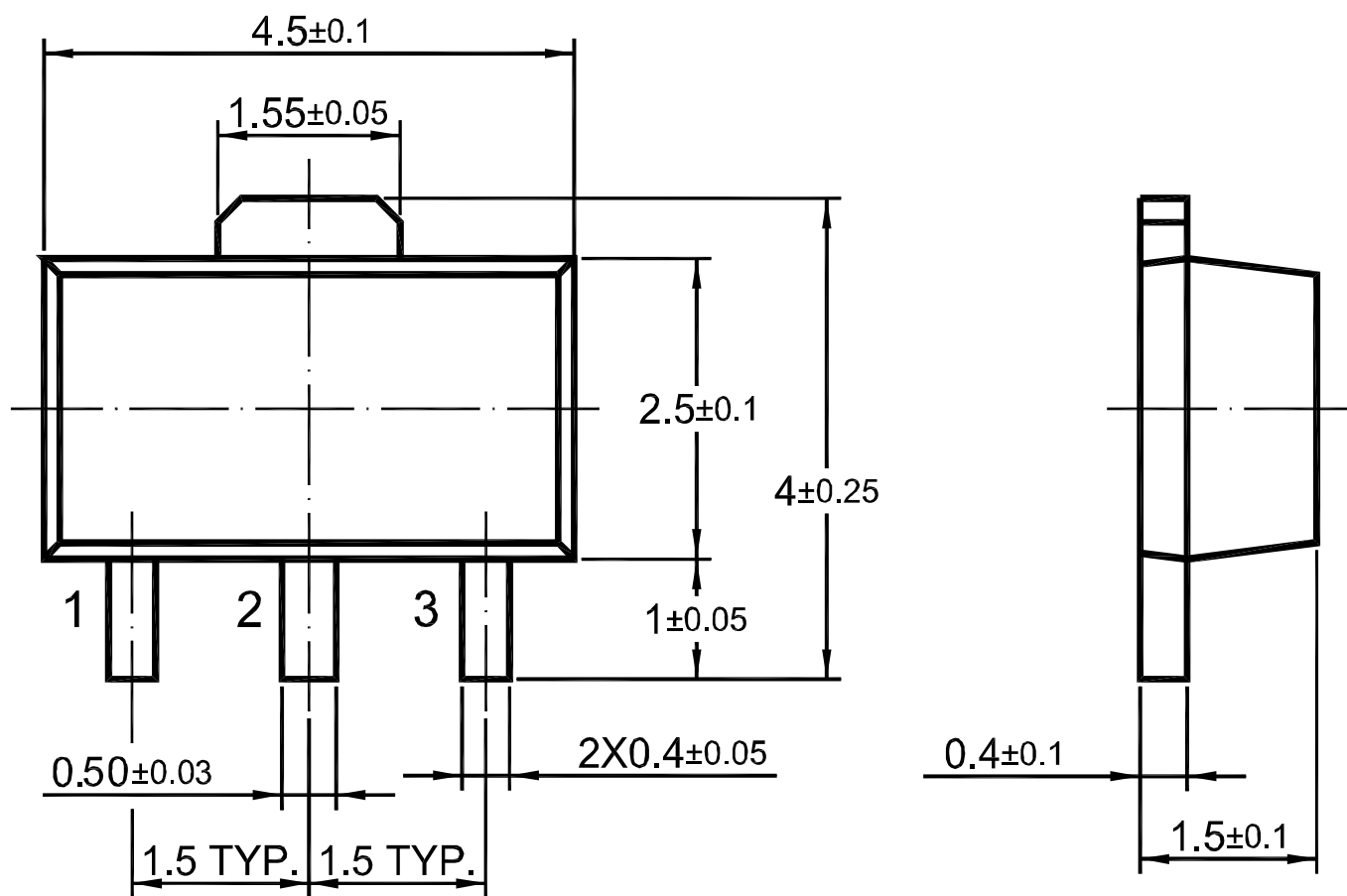
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3-Terminal Voltage Regulator

Package Outline

SOT-89

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ78M05SQ	SOT-89	3,000PCS/Reel&13inches