



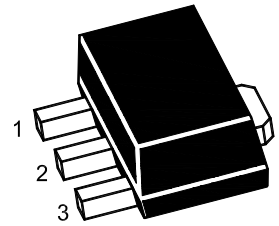
# PJ78M05SQ

## 3-Terminal Voltage Regulator

### Features

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

SOT-89



1. VOUT 2. GND 3. VIN

Marking Code : 78M05

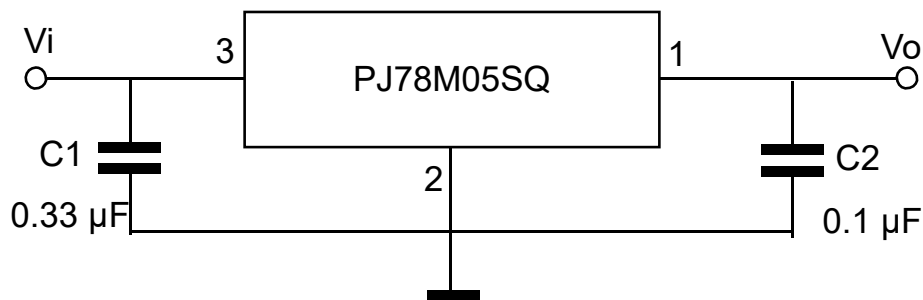
### Absolute Maximum Ratings

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 <sup>Note1</sup>	$P_D$	1	W
Junction Temperature	$T_J$	150	°C
Operating Temperature Range	$T_{OPR}$	-40 to +125	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

#### Note:

1. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.





# PJ78M05SQ

## 3-Terminal Voltage Regulator

### Electrical Characteristics

Ratings at  $V_I=10V, I_O=300mA, C_I=0.33\mu F, C_O=0.1\mu F$ , With heat sink, 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	$\Delta V_O$	$V_I=7V$ to $25V, I_O=200mA$	--	--	100	mV
		$V_I=8V$ to $25V, I_O=200mA$	--	--	50	mV
Load Regulation	$\Delta V_O$	$I_O=5mA$ 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	$\Delta I_Q$	$V_I=8V$ 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	--	$\mu V$



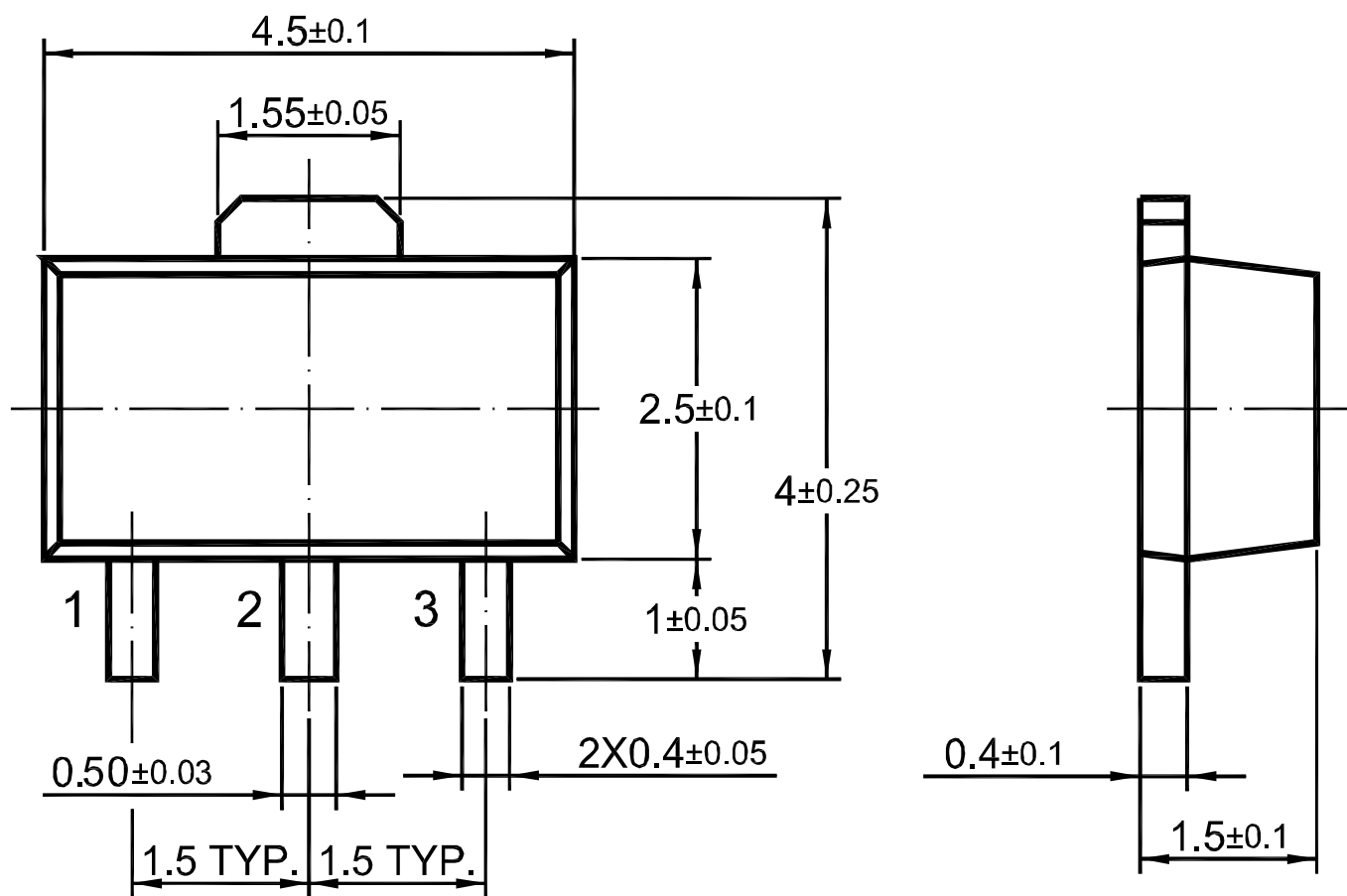
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## 3-Terminal Voltage Regulator

### Package Outline

SOT-89

Dimensions in mm



### Ordering Information

Device	Package	Shipping
PJ78M05SQ	SOT-89	1,000PCS/Reel&7inches
		3,000PCS/Reel&13inches