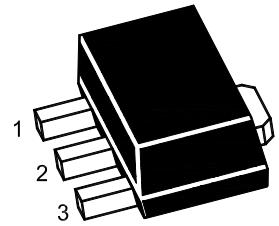


### Features

- Input voltage: up to 35V
- Output voltage: 5V
- Output current up to 100 mA, internal thermal overload protection and short-circuit current limiting.

### SOT-89



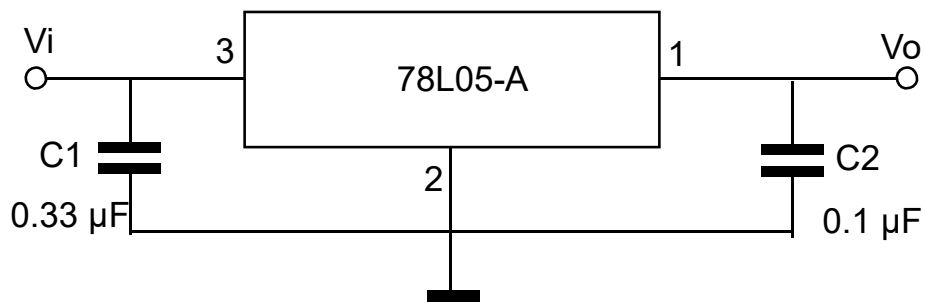
1. OUT 2. GND 3. IN

Marking Code : 78L05

### Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	35	V
Output Current	$I_o$	100	mA
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C



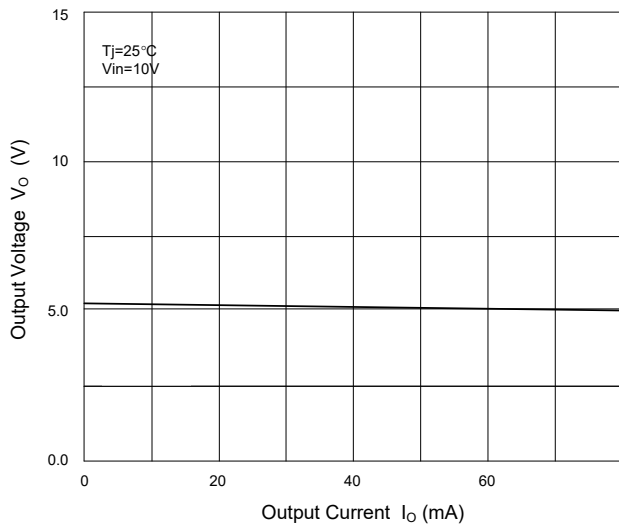
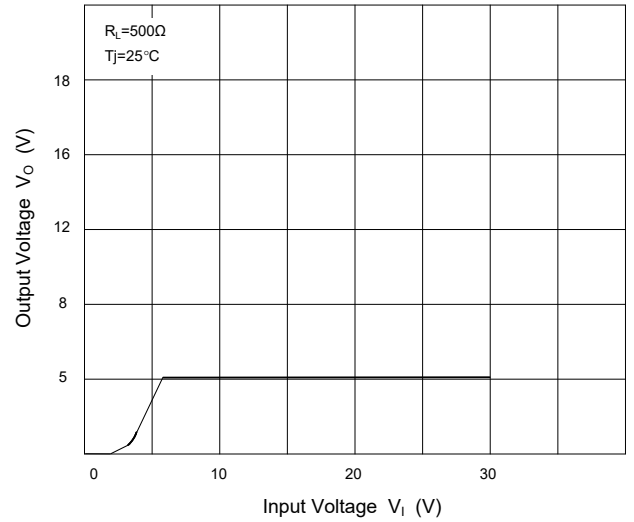
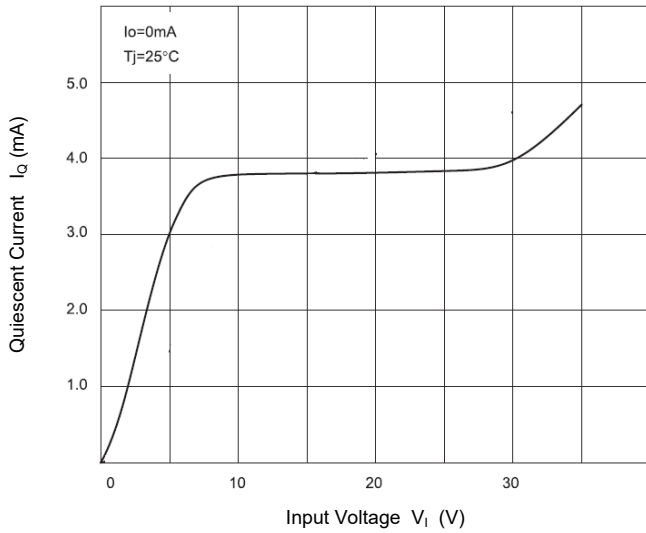
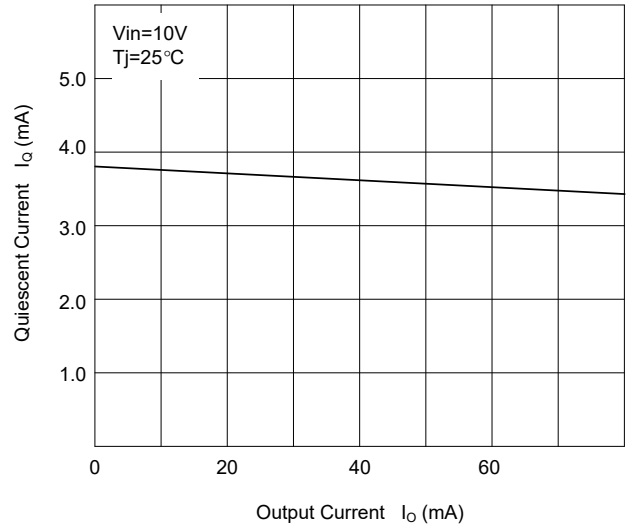
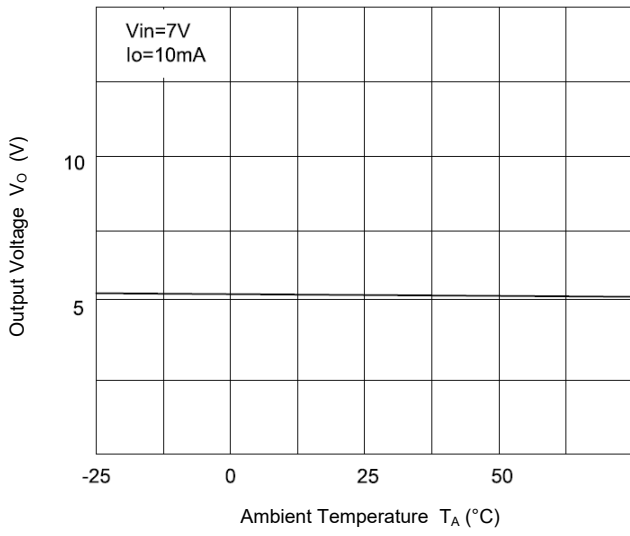
**Electrical Characteristics**

 Ratings at  $T_J=25^{\circ}\text{C}$  , unless otherwise specified.

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	$V_o$	$V_i=10\text{V}$ , $I_o=40\text{mA}$	4.85	5.0	5.15	V
		$I_o=1\text{mA}$ to $40\text{mA}$ , $V_i=7\text{V}$ to $25\text{V}$	4.8	5.0	5.2	V
		$I_o=1\text{mA}$ to $100\text{mA}$	4.75	5.0	5.25	V
Line Regulation	$\Delta V_o$	$V_i=7\text{V}$ to $25\text{V}$ , $T_J=25^{\circ}\text{C}$	--	18	75	mV
		$V_i=8\text{V}$ to $25\text{V}$ , $T_J=25^{\circ}\text{C}$	--	10	54	mV
Load Regulation	$\Delta V_o$	$I_o=1\text{mA}$ to $100\text{mA}$ , $T_J=25^{\circ}\text{C}$	--	20	60	mV
		$I_o=1\text{mA}$ to $40\text{mA}$ , $T_J=25^{\circ}\text{C}$	--	5	30	mV
Ripple Rejection	RR	$V_i=8\text{V}$ to $16\text{V}$ , $f=100\text{Hz}$ , $T_J=25^{\circ}\text{C}$	47	62	--	dB
Quiescent Current	$I_q$		--	3.75	6	mA
Quiescent Current Change	$\Delta I_q$	$V_i=8\text{V}$ to $25\text{V}$	--	--	1.0	mA
		$I_o=1\text{mA}$ to $40\text{mA}$	--	--	0.3	mA
Output Noise Voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$ , $T_J=25^{\circ}\text{C}$	--	40	--	$\mu\text{V}$



Typical Characteristic Curves

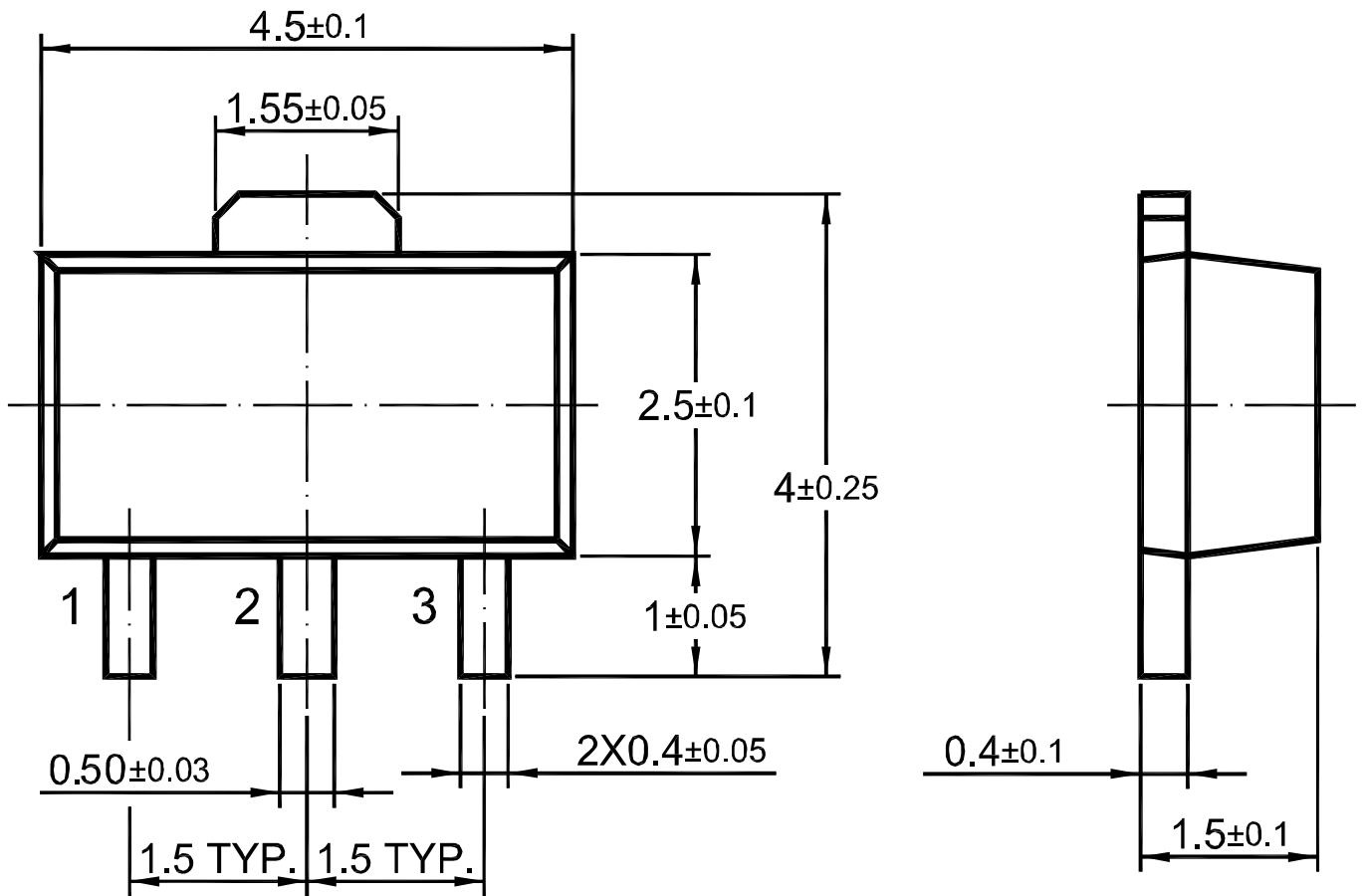




Package Outline

SOT-89

Dimensions in mm



Ordering Information

Device	Package	Shipping
78L05-A	SOT-89	1,000PCS/Reel&7inches
		3,000PCS/Reel&13inches