

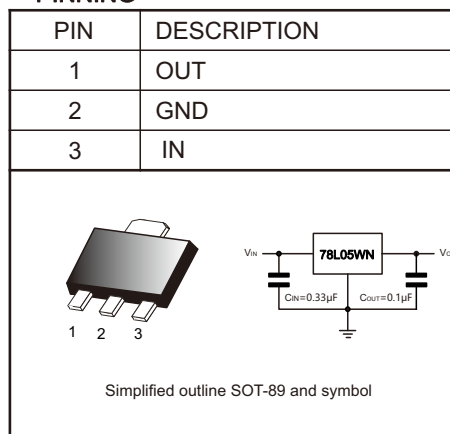
Features

- output current up to 100 mA
- Totally Lead-Free & Fully RoHS Compliant (Note 1)
- Halogen and Antimony Free."Green" Device (Note 2)

Mechanical Data

- Case: SOT-89-3L
- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0

PINNING



MAXIMUM RATINGS (Ta = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Input Voltage	V _I	30	V
Output current	I _O	100	mA
Operating virtual Junction temperature	T _J	0 ~ 125	°C
Power Dissipation	P _D	500	mW
Storage temperature range	T _{stg}	-65 ~ 150	°C

Notes: 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS3).compliant.
 2. Halogen-and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br +Cl) and <1000ppm antimony compounds.

ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
OFF Characteristics						
Output voltage	V _O	I _O = 40mA T _j =25°C	4.8	5	5.2	V
		I _O =1mA to 40mA V _I =7V to 20V	4.75	5	5.25	V
		I _O =1mA to 70mA V _I =10V	4.75	5	5.25	V
Input regulation	V _O	V _I =7V to 20V T _j =25°C		32	150	mV
		V _I =8V to 20V T _j =25°C		26	100	mV
Output regulation	V _O	V _I =7V to 20V T _j =25°C		15	60	mV
		V _I =8V to 20V T _j =25°C		8	30	mV
Ripple rejection	RR	V _I =8V to 18V f=120Hz T _j =25°C	41	48		dB
Output noise voltage	V _N	f=10Hz~100KHz T _j =25°C		42		µm
Dropout voltage	V _D	T _j =25°C		1.7		V
Bias current	I _Q	T _j =25°C		3.8	6	mA
		T _j =125°C			5.5	mA
Bias current Change	I _Q	V _I =8V to 20V			1.5	mA
		I _O =1mA to 40mA			0.1	mA



Typical Performance Characteristics

Fig 1. $V_o - V_i$

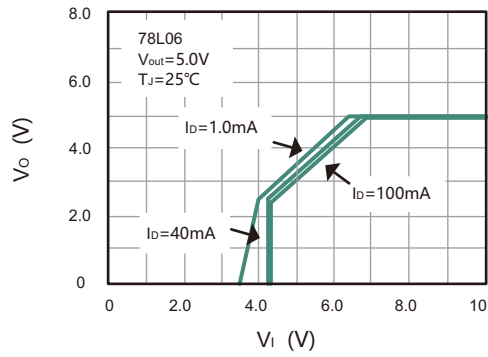


Fig 2. $V_i - V_o - T_J$

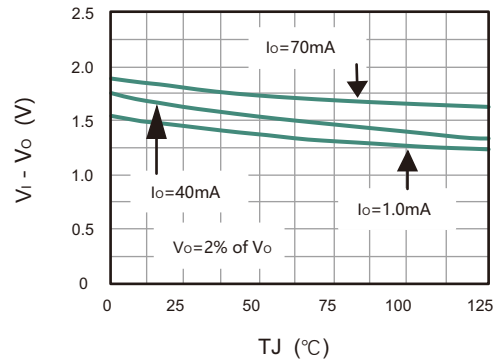


Fig 3. $I_{IB} - T_A$

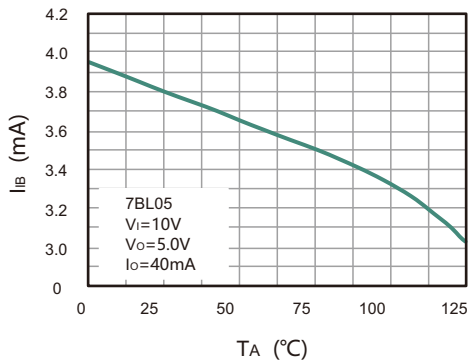
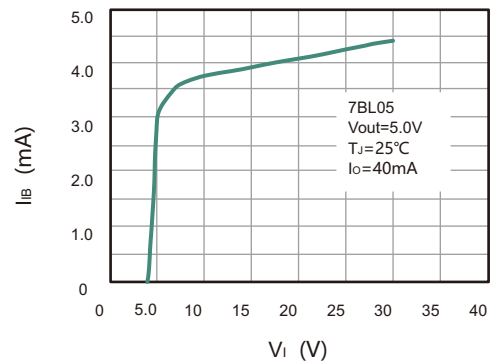
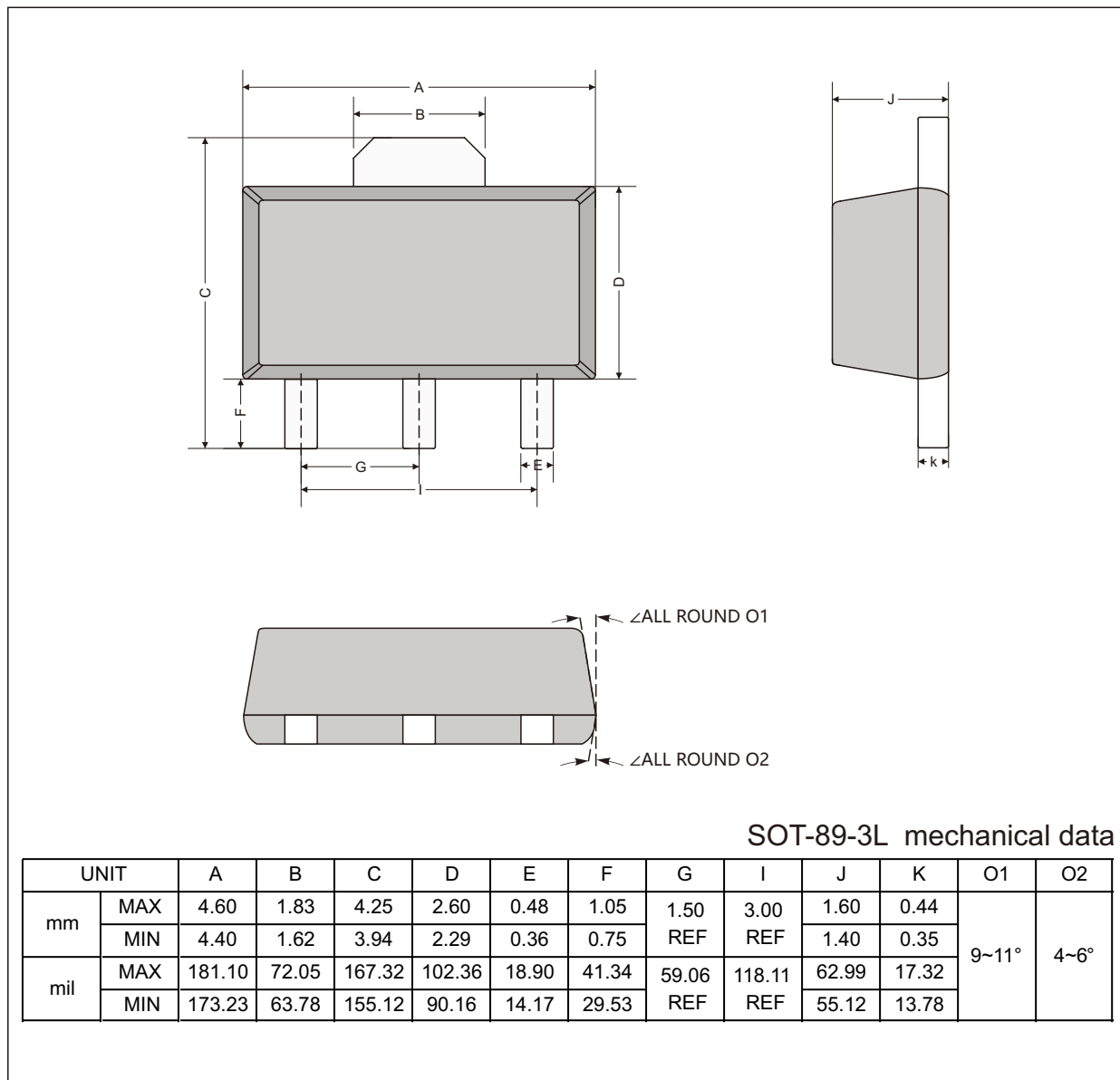


Fig 4. $I_{IB} - V_i$





SOT-89-3L Package Outline Dimensions



Marking

Type number	Marking code
78L05WN	78L05



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