HA178L00 Series

3-terminal Fixed Voltage Regulators

REJ03D0683-0300
Rev.3.00
Oct 24, 2007

Description

The HA178L00 series three-terminal fixed output voltage regulators. Can be used not only as stabilized power sources, but also as Zener diodes because of their small outline package.

Features

- Maximum output current: 150 mA (Tj = 25°C)
- Large maximum power dissipation: 800 mW
- Overcurrent protection
- Temperature protection circuit

Ordering Information

Application	Standard Output Voltage Tolerance ±8%	A Version Output Voltage Tolerance ±5%
Industrial use	HA178L00P	HA178L00PA
Commercial use	HA178L00	HA178L00A
		HA178L00UA

Output Voltage and Part No.

HA178L00PA • HA178L00P • HA178L00A • HA178L00

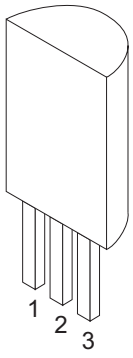
Output Voltage (V)	Part No.	Package Name	Package Code
2.5	HA178L02	TO-92 ModV	PRSS0003DC-A
5	HA178L05		
5.6	HA178L56		
6	HA178L06		
8	HA178L08		
9	HA178L09		
10	HA178L10		
12	HA178L12		
15	HA178L15		

HA178L00UA

Output Voltage (V)	Part No.	Marking	Package Name	Package Code
2.5	HA178L02UA	8A	UPAKV	PLZZ0004CA-A
5	HA178L05UA	8B		
5.6	HA178L56UA	8C		
6	HA178L06UA	8D		
8	HA178L08UA	8E		
9	HA178L09UA	8F		
10	HA178L10UA	8G		
12	HA178L12UA	8H		
15	HA178L15UA	8J		

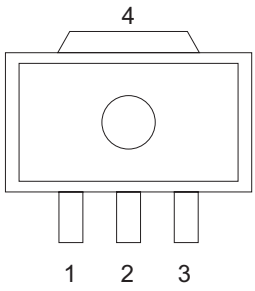
Pin Arrangement

• TO-92 ModV



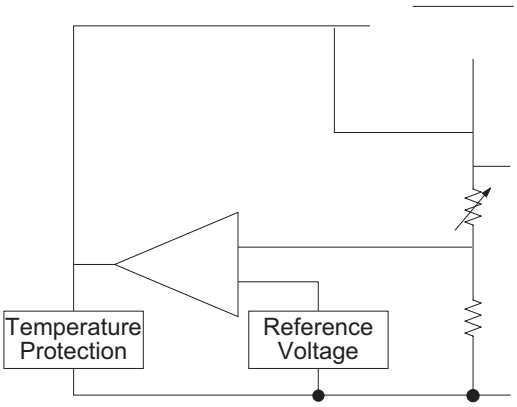
1. OUT
2. GND
3. IN

• UPAKV

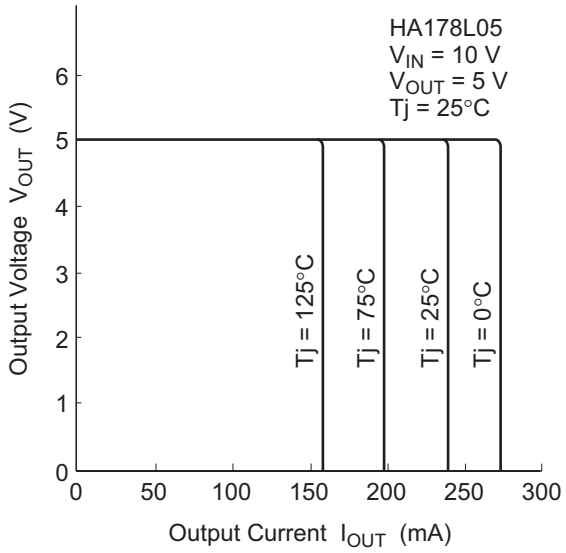


1. OUT
2. GND
3. IN
4. GND

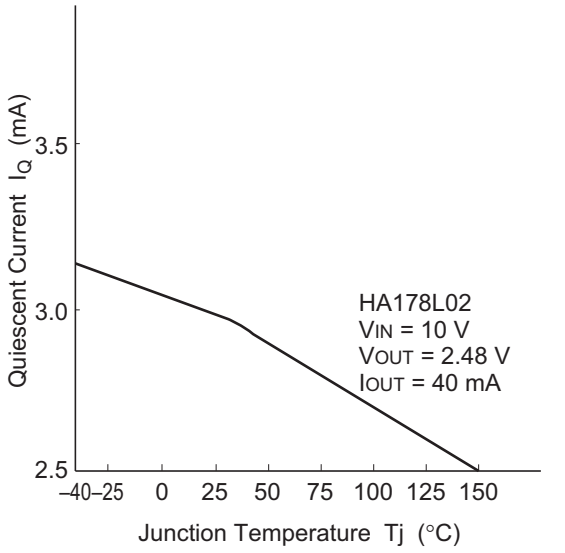
Block Diagram



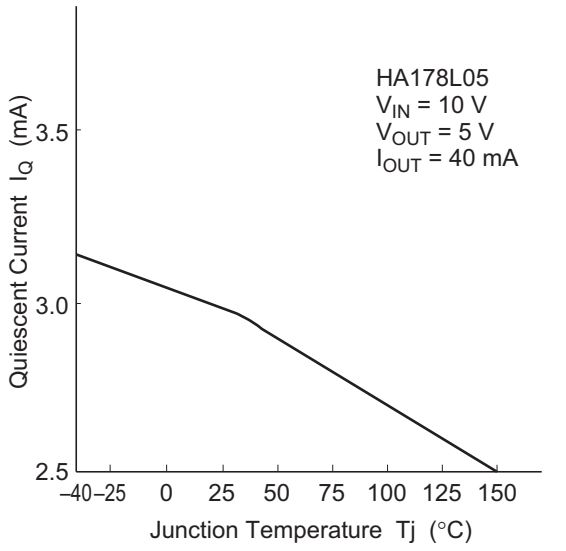
Output Voltage vs. Output Current



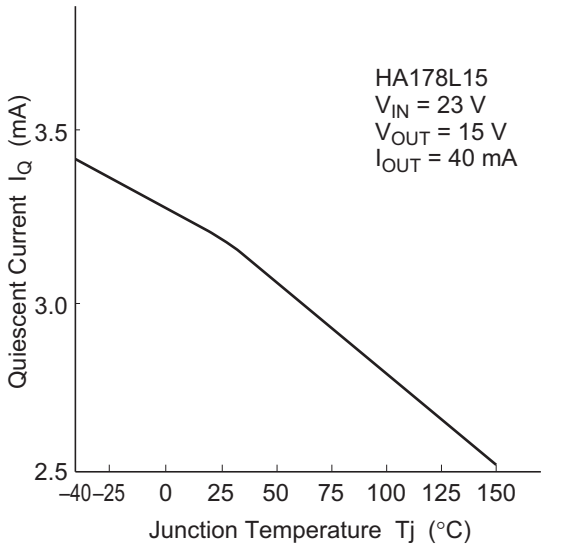
Quiescent Current vs. Junction Temperature (1)



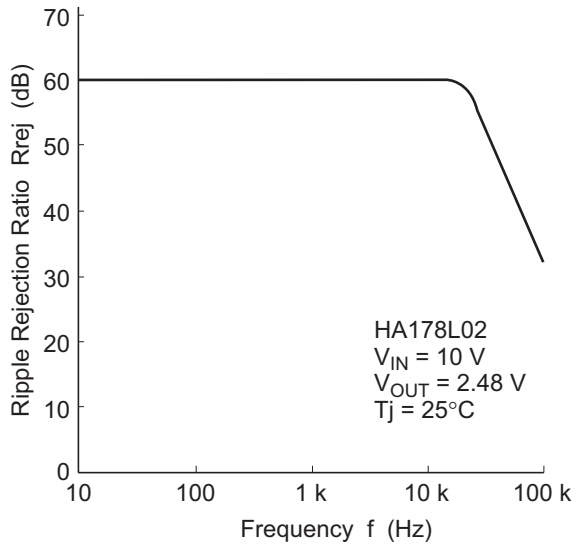
Quiescent Current vs. Junction Temperature (2)



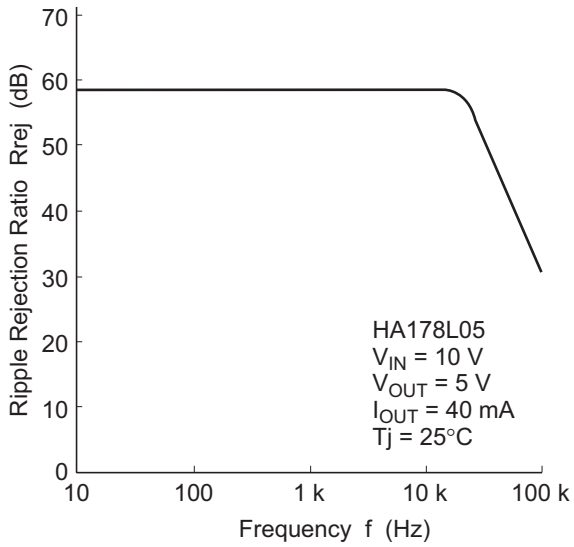
Quiescent Current vs. Junction Temperature (3)



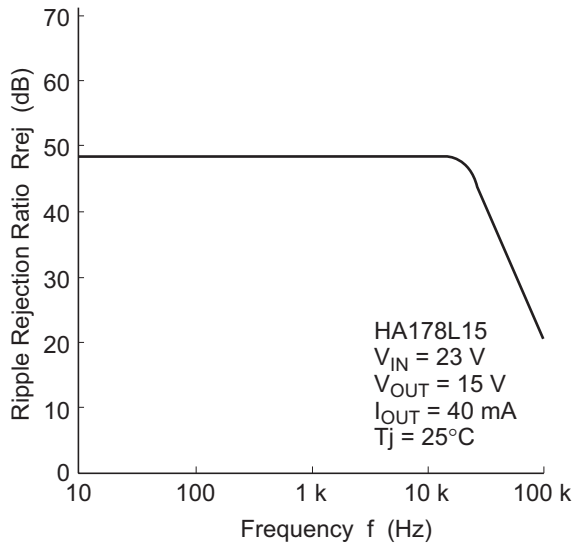
Ripple Rejection Ratio vs. Frequency (1)



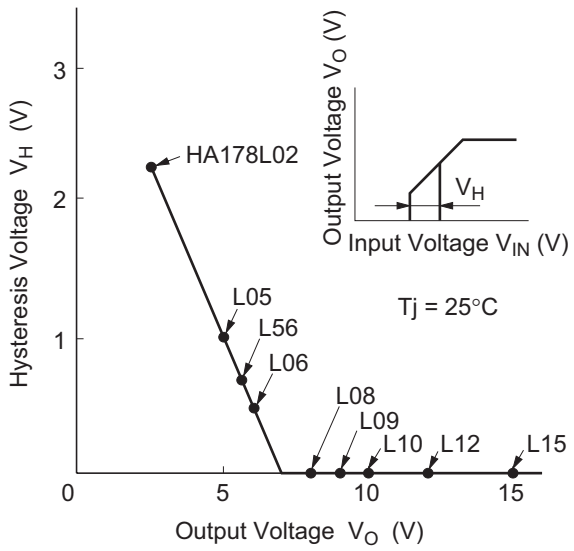
Ripple Rejection Ratio vs. Frequency (2)



Ripple Rejection Ratio vs. Frequency (3)



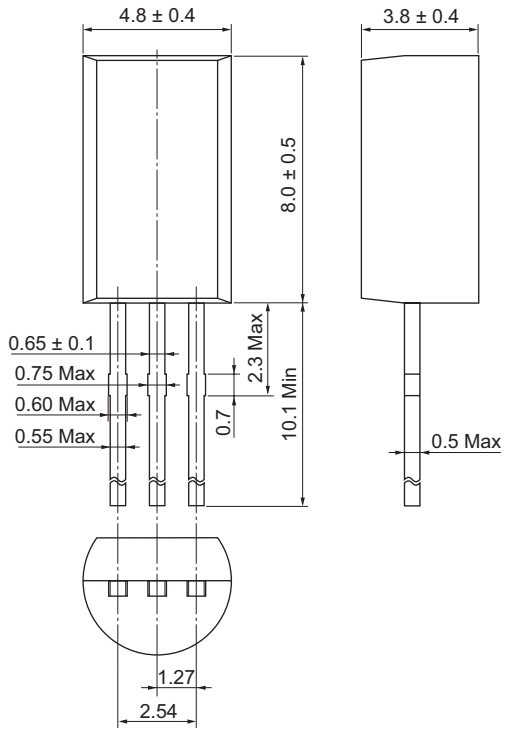
Hysteresis Voltage vs. Output Voltage



Package Dimensions

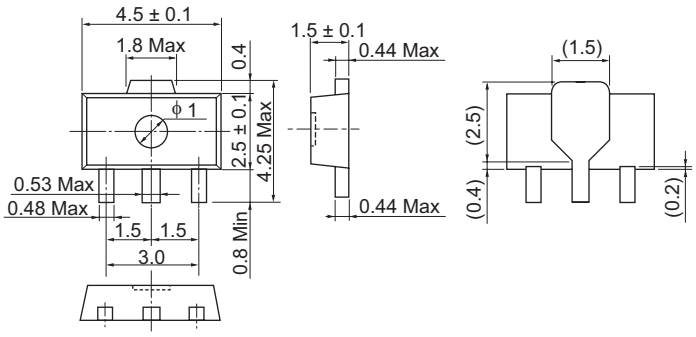
Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TO-92 Mod	SC-51	PRSS0003DC-A	TO-92 Mod / TO-92 ModV	0.35g

Unit: mm



Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
UPAK	SC-62	PLZZ0004CA-A	UPAK / UPAKV	0.050g

Unit: mm



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