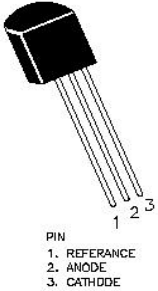


PROGRAMMABLE SHUNT REGULATOR

TL431



**TO-92
Plastic Package**

Three Terminal Adjustable Regulator series with a Guaranteed Thermal Stability over Applicable Temperature Ranges

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	MIN	MAX	UNITS
Cathode Voltage	V _{KA}		37	V
Cathode Current Range Continuous	I _{KA}	-100	150	mA
Reference Input Current Range	I _{REF}	0.05	10	mA
Power Dissipation	P _D		700	mW
Operating Temperature Range	T _{OPR}	0	70	°C
Storage Temperature Range	T _{stg}	-65	150	°C

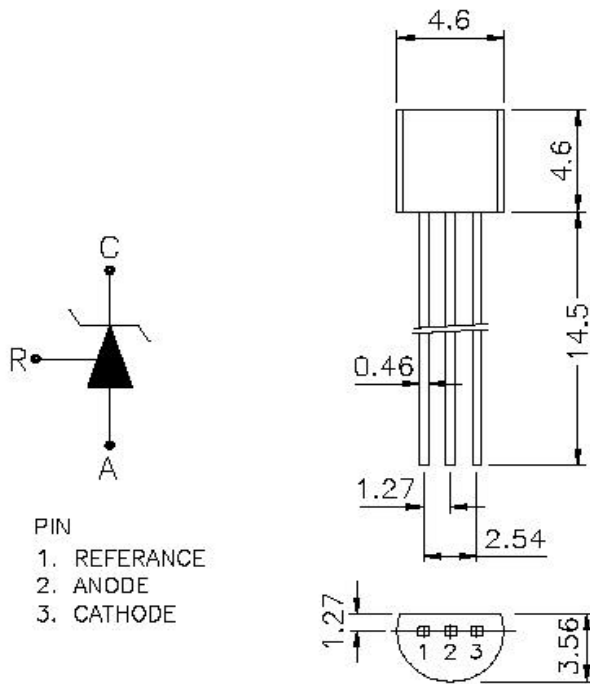
ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Reference Input Voltage	V _{REF}	V _{KA} =V _{REF} , I _{KA} =10mA			
		TL431	2.44	2.55	V
		TL431A	2.44	2.48	V
		TL431B	2.47	2.53	V
TL431C	2.52	2.55	V		
Reference Input Current	I _{REF}	I _{KA} = 10mA, R ₁ =10KΩ, R ₂ = ∞		4.0	μA
Minimum Cathode Current for Regulation	I _{KA (MIN)}	V _{KA} =V _{REF}		1.0	mA
Off Stage Cathode Current	I _{KA (OFF)}	V _{KA} =36V, V _{REF} =0		1.0	μA

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- PIN
1. REFERENCE
2. ANODE
3. CATHODE

ALL DIMENSIONS ARE IN M.M.

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



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