

# DIO7002

## 5.5V, 2A Low Loss Power Distribution Switch

### Features

- Input voltage: 2.7V to 5.5V
- 2A load current capability
- Programmable current limit
- Enable polarity:  
DIO7002A: Active high  
DIO7002B: Active Low
- Over temperature protection
- Reverse blocking (no body diode)
- OUT can be forced higher than IN at shutdown
- Compact SOT23-5 package minimizes the board space

### Applications

- USB Ports/Hubs
- Digital TV
- Set-Top Boxes
- VOIP Phones

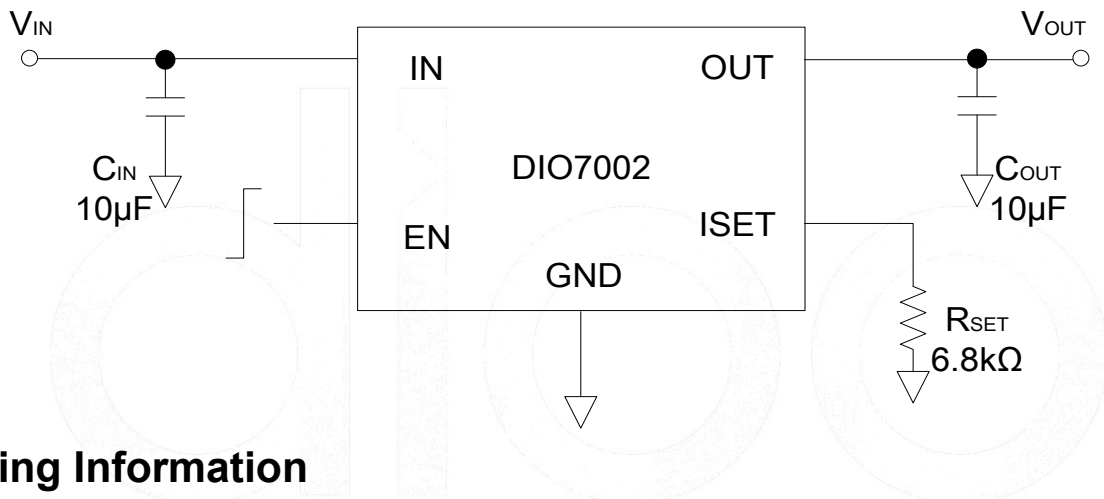
### Descriptions

The DIO7002 power distribution switch is intended for applications where precision current limiting is required or heavy capacitive loads and short circuits are encountered. The power switch rising and falling times are controlled to minimize current surges during turning on/off.

The DIO7002 device limits the output current under a safe level by using a constant current mode when the output load exceeds the current limit threshold.

The DIO7002 is available in the SOT-23-5 packages. It is rated over the  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  temperature range.

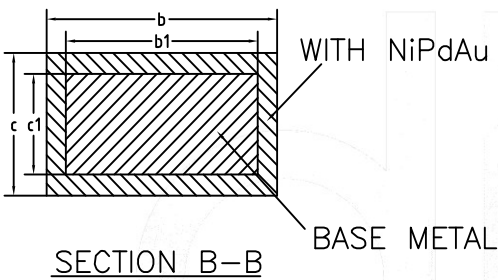
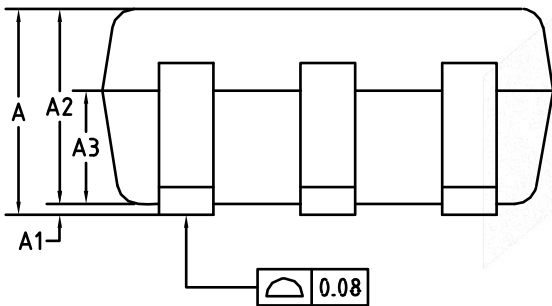
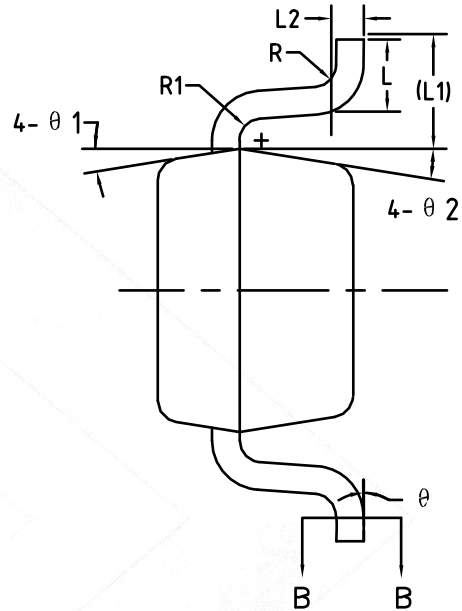
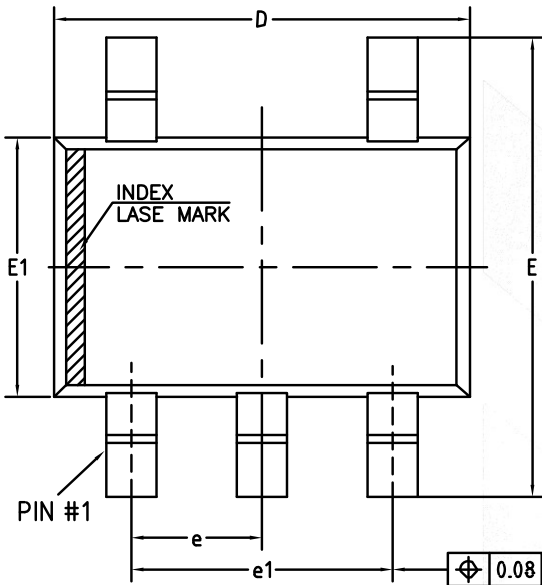
### Block Diagram



### Ordering Information

Order Part Number	Top Marking	Enable		T <sub>A</sub>	Package	
DIO7002AST5	YW2A	Active High	Green	-40 to +85°C	SOT23-5	Tape & Reel, 3000
DIO7002BST5	YW2B	Active Low	Green	-40 to +85°C	SOT23-5	Tape & Reel, 3000

Physical Dimensions: SOT-23-5



COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	-	-	1.25
A1	0	-	0.15
A2	1.00	1.10	1.20
A3	0.60	0.65	0.70
b	0.36	-	0.50
b1	0.36	0.38	0.45
c	0.14	-	0.20
c1	0.14	0.15	0.16
D	2.826	2.926	3.026
E	2.60	2.80	3.00
E1	1.526	1.626	1.726
e	0.90	0.95	1.00
e1	1.80	1.90	2.00
L	0.35	0.45	0.60
L1	0.59REF		
L2	0.25BSC		
R	0.10	-	-
R1	0.10	-	0.25
θ	0°	-	8°
θ1	3°	5°	7°
θ2	6°	-	14°



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## CONTACT US

Dioo is a professional design and sales corporation for high-quality and performance analog semiconductors. The company focuses on industry markets, such as, cell phone, handheld products, laptop, and medical equipment and so on. Dioo's product families include analog signal processing and amplifying, LED drivers and charger IC. Go to <http://www.dioo.com> for a complete list of Dioo product families.

For additional product information, or full datasheet, please contact with our Sales Department or Representatives.

