



## DIO3157E

# Enhanced Low Voltage SPDT Analog Switch with Power on and Power Off Protection

### Features

- Over-Voltage Tolerance (OVT) Features at common port
- Low On Capacitance: 18pF Typical
- Low On Resistance: 10Ω Maximum
- Low Power Consumption: 1uA Maximum 10uA Maximum  $I_{CC}$  over an Expanded Voltage Range ( $V_{in}=2.7V$ ,  $V_{cc}=4.3V$ )
- Wide -3dB Bandwidth: >300MHz
- Wide Supply Range: 1.65~5.5V
- Packaged: 6-Lead SC70 and SOT23
- 8kV HBM ESD Rating, 2kV CDM ESD Rating

### Applications

- Cell Phones
- PDAs
- Portable Instrumentation
- Battery Powered Communications
- Computer Peripherals

### Descriptions

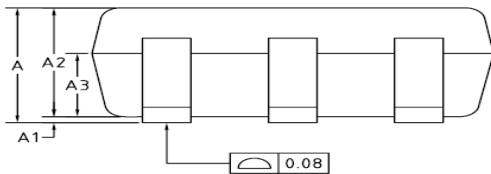
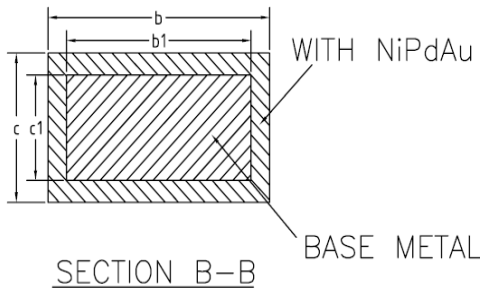
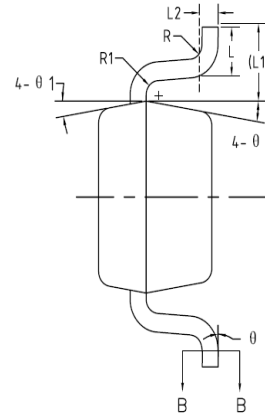
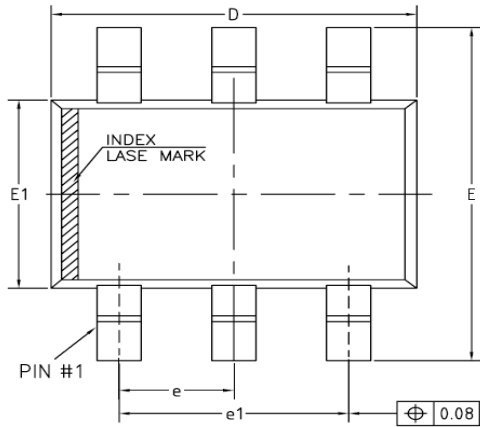
The DIO3157E is an enhanced single-pole double-throw (SPDT) CMOS analog switch. It features power ON/OFF protection on common ports effectively protecting device against external signal perturbation. It also offers excellent -3db bandwidth and lower ON resistance, which can be used as analog switch in multiple applications.

DIO3157E operates under wide  $V_{cc}$  supply from 1.65V to 5.5V, consuming very low quiescent current even when the voltage of S pin is lower than  $V_{cc}$  supply. This new feature services the mobile handset applications very well allowing for the direct interface with baseband processor general purpose I/Os with no need of level translator.

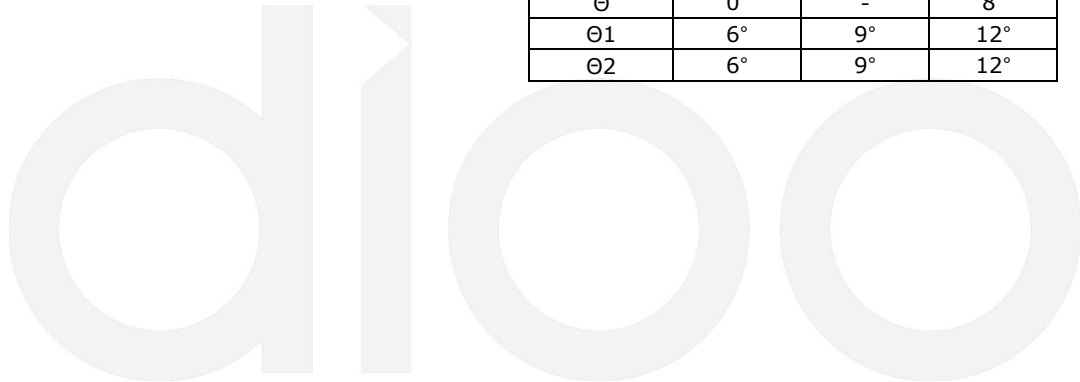
### Ordering Information

Order Part Number	Top Marking		$T_A$	Package	
DIO3157ESC6	YW(X)Z	RoHS/Green	-40 to +85°C	SC70-6	Tape & Reel, 3000
DIO3157EST6	YW(X)Z	RoHS/Green	-40 to +85°C	SOT23-6	Tape & Reel, 3000

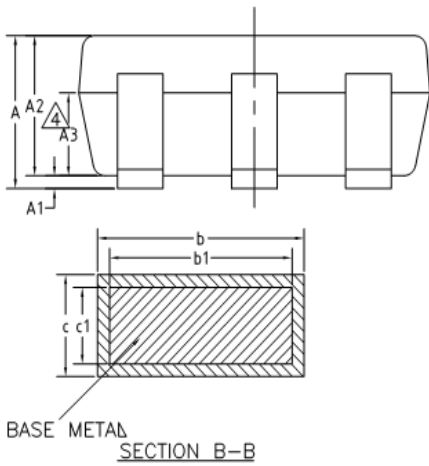
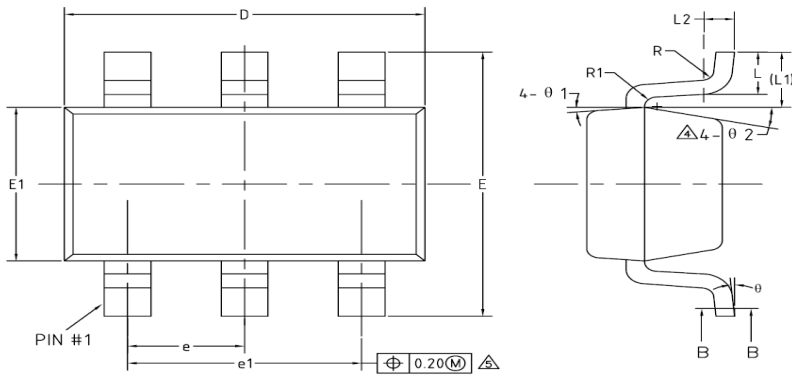
## Physical Dimensions: SC70-6



COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	0.85	-	1.05
A1	0	-	0.10
A2	0.80	0.90	1.00
A3	0.47	0.52	0.57
b	0.22	-	0.29
b1	0.22	0.25	0.28
c	0.115	-	0.15
c1	0.115	0.13	0.14
D	2.02	2.07	2.12
E	2.20	2.30	2.40
E1	1.25	1.30	1.35
e	0.65BSC		
e1	1.30BSC		
L	0.28	0.33	0.38
L1	0.50REF		
L2	0.15BSC		
R	0.10	-	-
R1	0.10	-	0.25
θ	0°	-	8°
θ1	6°	9°	12°
θ2	6°	9°	12°



## Physical Dimensions: SOT-23-6



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°



## DIO3157E

### 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 equipments 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.

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