

ABC 550 SERIES

Mini High Voltage Modules



The ABC series of DC/DC converters has been designed for optimum avalanche photodiode (APD) performance. The output voltage is precisely adjustable and highly stable and the temperature coefficient of the output voltage can be exactly adapted to the properties of the APD.

Discrete APDs as well as APD modules with integrated temperature sensors can be controlled using the ABC series. The output current is limited to a safe level so that the APD is protected against overload. A precise reference voltage source is built in. The output voltage can be adjusted either with a simple potential divider or with an external control voltage. By means of an additional control voltage the amplification of the APD can either be adjusted with a closed loop or be precisely modulated. The device has a wide operating voltage range from 10 to 18 V. A silicon diode is used as temperature sensor and is supplied for the -04 and -06 versions.

FEATURES

- / Positive or negative output voltage up to 500 V
- / Adjustable temperature
- / High accuracy < 0.2 %
- / High stability < 0.01 %
- / Short-circuit proof
- / Low ripple
- / Compact shielded housing

OPTIONS

- / Temperature coefficient permanently
- / Set internally
- / Negative temperature coefficient
- / Output voltage permanently set internally
- / Adaptation to APD modules with integrated temperature sensor
- / Optimized OEM-Versions

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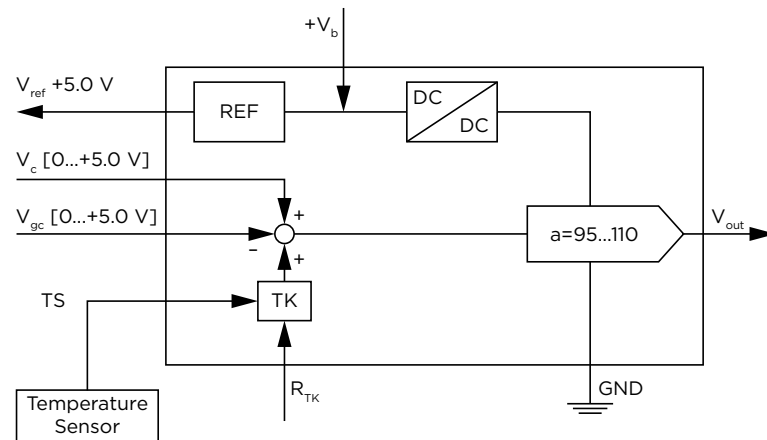
SPECIFICATIONS

ABC Series	550-04	550-05	550-06	Name	PIN
Operating voltage [V]	+10 to +18 (typ. 12)			V_b	1
Gain control [V]	0 to +5			V_{GC}	2 ^a
Ground				GND	3
Control voltage [V]	0 to +5			V_c	4
Reference voltage [V]	+5.050			V_{Ref}	5
Temperature Sensor	temperature dependent resistor ^b	Si-P-N-Diode	temperature dependent resistor ^b	TS	6
TC Adjustment				TC	7
Ground				GND	8
Output voltage @ $V_c = 0-5$ [V]	+10 to +550	+10 to +550	-10 to -550	V_{out}	9
Output current [mA]	0.2 max.				
Measures [mm]	40x40x10				
Weight [g]	34				

a Not applicable to ABC550-05

b i.e.: KTY 11-7, supplied with the module

Function Diagram ABC 550-Series



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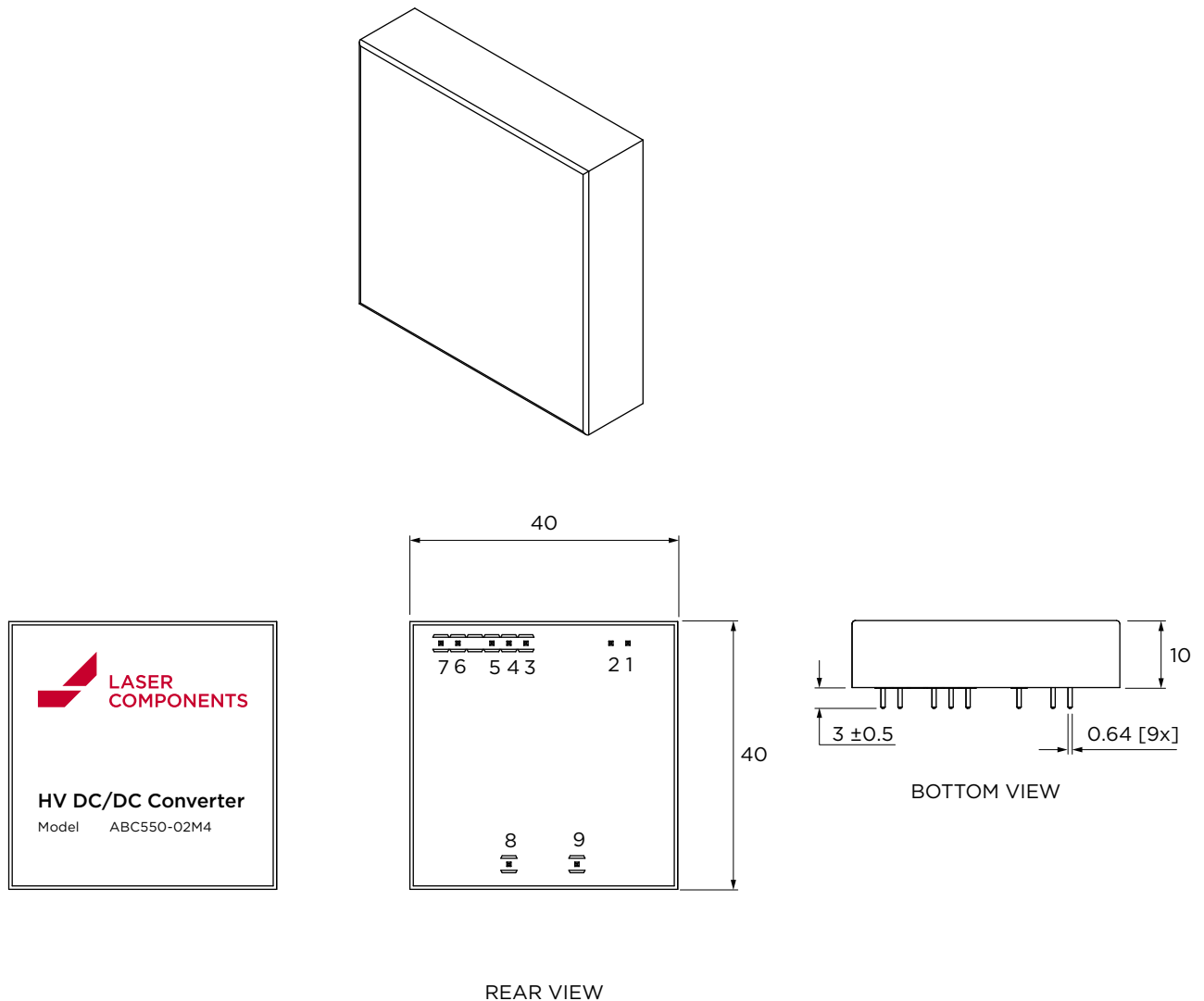
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TECHNICAL DRAWING

Dimensions



ABC-Module

Units: mm

Note: Pin 2 is not present on the ABC550-05

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