

BOS052S

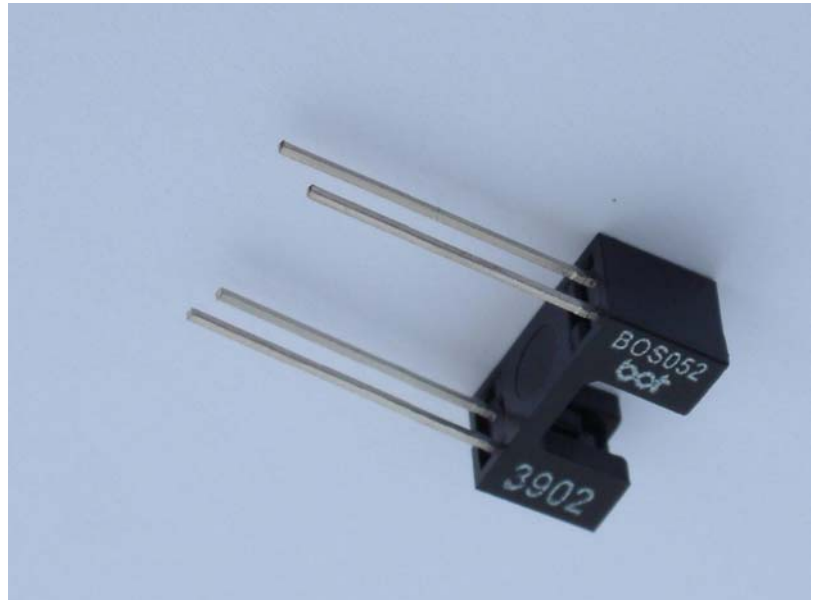
Slotted Optical Switch

Schmitt output

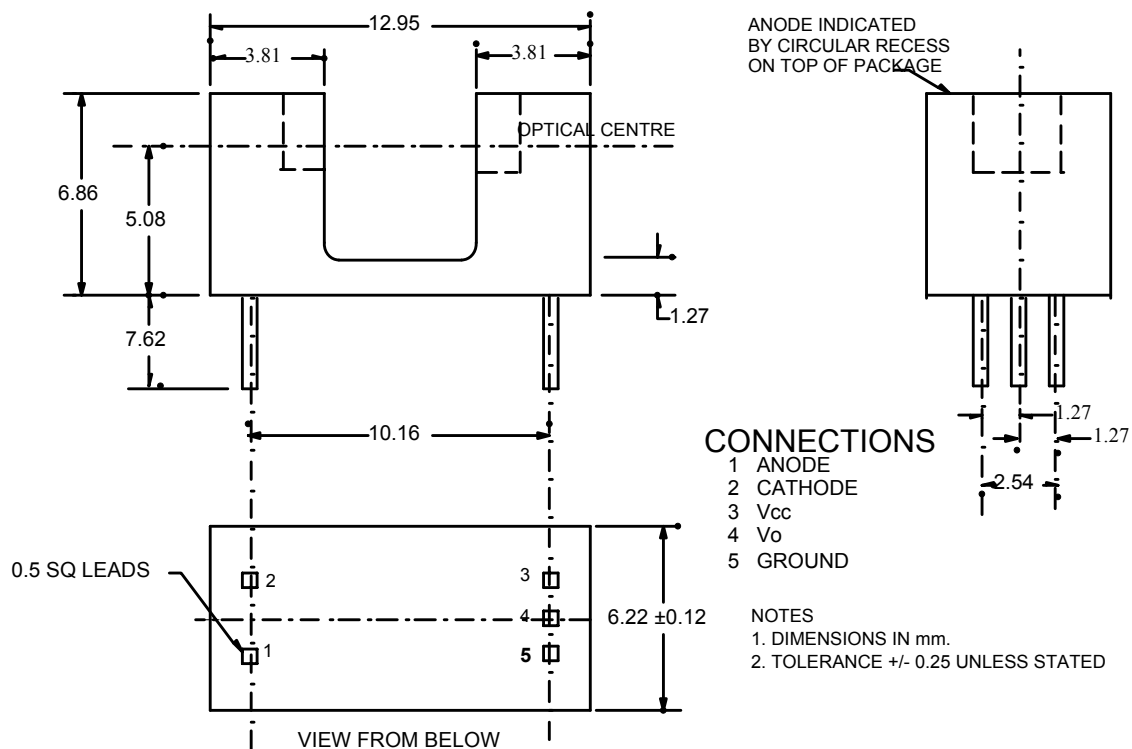
FEATURES

BOS052S is a compact optical switch with a 5.2mm slot width. It uses a plastic packaged Gallium Arsenide light emitter and Opto Schmitt detector.

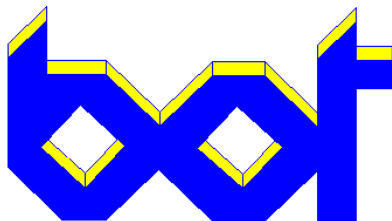
- Low profile.
- High sensitivity
- Opaque housing.
- 5.2mm slot width.



MECHANICAL DATA



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BOS052S

Slotted Optical Switch

Schmitt output

ABSOLUTE MAXIMUM RATINGS (25 °C)

INPUT DIODE FORWARD DC CURRENT REVERSE DC VOLTAGE POWER DISSIPATION DERATING FACTOR ABOVE 25°C	50mA 3V 100mW 1.6mW
OUTPUT SENSOR SUPPLY VOLTAGE OUTPUT SINK CURRENT SHORT Vo TO Vcc or GROUND	12V 18mA 1 sec
OPERATING TEMP	-40°C to +85°C
STORAGE TEMP	-40°C to +85°C
LEAD SOLDERING TEMP (t = 3 sec 1.6mm from body)	240 °C

ELECTRICAL CHARACTERISTICS at 25 °C

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITION
INPUT DIODE Vf	Forward Voltage			1.5	Volts	If = 20 mA
Ir	Reverse Leakage Current			100	uA	Vr = 2V
DETECTOR Vcc	Supply voltage	4.5		12	Volts	
Iccl	Low level supply current	4.0		12	mA	Vcc=5V
		5.0		15	mA	Vcc=12V
Icch	High level supply current	2.0		10	mA	Vcc=5V
		3.0		12	mA	Vcc=12V
Vol	Low level output voltage			0.4	Volts	Iol=12.8 If=0mA
Voh	High level output voltage	2.4			Volts	Ioh=0mA If=20mA
HYST	Hysteresis		10			
tpLH	Propagation delay Low-High		5		uS	Vcc=5V If=20mA
tpHL	Propagation delay High-Low		5		uS	Vcc=5V If=20mA
Tr	Rise time		60		nS	RI=390ohm CI=50pF
Tf	Fall time		15		nS	ditto
COUPLED Ift	Trigger Current	1		10.0	mA	Vcc=5V

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