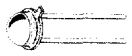
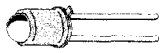
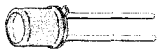
PHOTON ACTIVATED LOGIC and PHOTODARLINGTONS

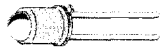
Photodarlington and PAL package options


SLR-50E__


SLR-50HL__


SLR-50HF__


SLL-50E__


SLL-50HL__


SLL-50HF__

For applications requiring higher gain, Silonex offers photodarlingtons which amplify very low light levels to give a usable analog output. This is at the expense of speed and temperature stability.

"Photon Activated Logic" devices can sense the level of a light or Infrared signal and through integrated electronics, trigger a switched output. This device is regularly used as a presence detector in applications where the sensor and motherboard are some distance apart.

.....Range of package types

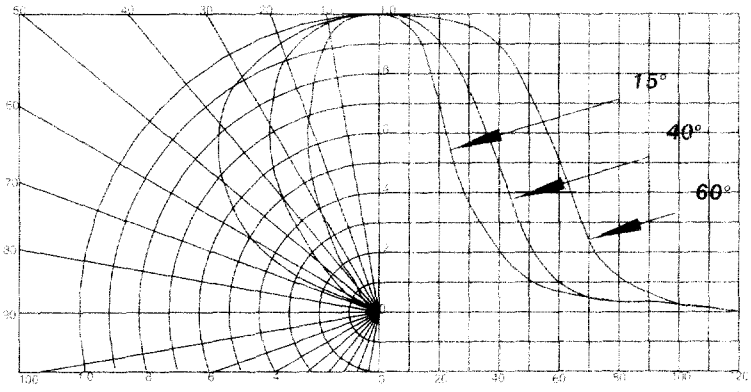
.....Parameter selection and custom configurations available

PART No.	Light Current	Dark Current	Collector Breakdown	Emitter Breakdown	Saturation Voltage	Rise/Fall Time
	V_{CE}=5V (1)E_e=2mW/cm² Min. (mA)	V_{CE}=10V E_e=0 Max. (nA)	I_C=100µA E_e=0 Min. (V)	I_C=100µA E_e=0 Min. (V)	I_C=1.0mA I_B=0.05mA Max. (V)	I_C=0.5mA (2) R_L=100Ω Typ.(µsec)
SLR-50HF3	4	100	40	10	1.1	75
SLR-50HF4	8	100	40	10	1.1	75
SLR-50HL3	4(3)	100	40	10	1.1	75
SLR-50HL4	8(3)	100	40	10	1.1	75

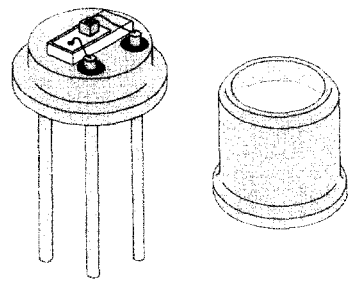
(1) Light source is a frosted Tungsten incandescent Lamp @ 2854°K.
(2) Light source is a GaAs IRED with a Tr<300ns. (3) E_e=0.2mW/cm²

PART No.	VCC Range (V)	Voltage Regulator	Buffer Invertor	Output Type	Hysteresis Ratio	Threshold Irradiance (nW)
SLL-50HF1A	4.5 - 18	Yes	I	O C	1.3	150
SLL-50HF1B	4.5 - 18	Yes	B	O C	1.3	150
SLL-50HL1A	4.5 - 18	Yes	I	O C	1.3	150
SLL-50HL1B	4.5 - 18	Yes	B	O C	1.3	150

Sensor Directional Sensitivity Characteristics



Can isolated construction



TO-46 package