JIC 0.1 EI19 and JIC 0.1 I19
SiC Photodetector

CHARACTERISTICS

Spectral range	210 to 380	nm
Active area	0.055	mm^2
High UV-responsivity	80	mV/nW

Externally adjustable gain (JIC 0.1 EI19 only)
Single supply voltage
Package isolated to ground

APPLICATIONS

UV measurement only
Control of sterilization lamps

MAXIMUM RATINGS

Maximum operating voltage	+15	V
Power consumption	180	mW
Operating temperature range	-25 to 70	°C
Storage temperature range	-40 to 100	°C
Soldering temperature (3s)	260	°C

TECHNICAL DATA

Common test conditions, if not otherwise specified: T_a = 25°C, V_{CC} = +5V

Parameter	Test conditions	Min.	Typ.	Max	Unit
Dark offset voltage	E = 0 lx		+/-1	+/-5	mV
Saturation voltage			+4.5		V
Noise voltage	B = 1kHz		0.5		mV_{rms}
Absolute spectral responsivity	λ = 254nm		0.8		mV/nW
Feedback resistor			1		GΩ
Risetime			30		µs
Bandwidth	-3 dB		1		kHz
Operating voltage		+/-3	+/-5	+/-12	V
Current Consumption			200	250	µA

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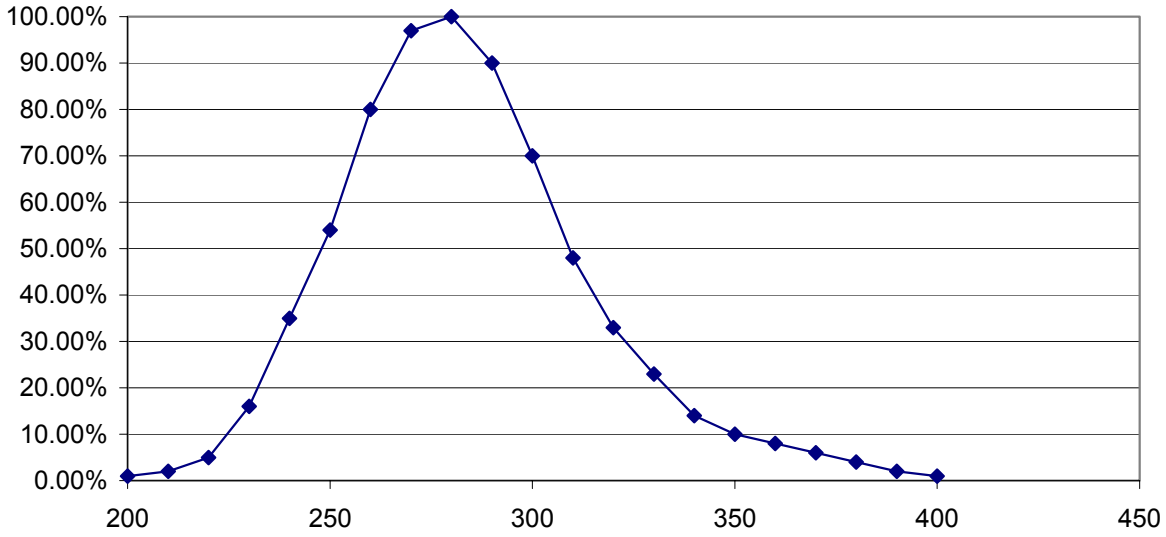
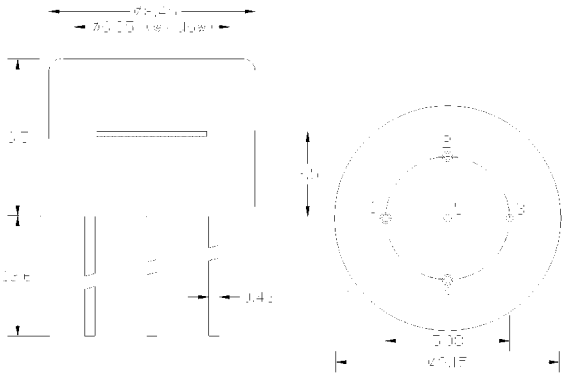
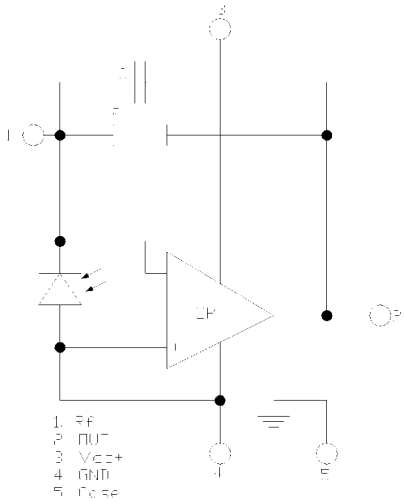
Relative Spectral Responsivity





Package Dimensions



Internal Circuit

Application Note:

- If an external resistor for reduction of response is used, make sure that the wire lengths are as small as possible to reduce noise and capacitance interference.
- If only internally adjusted gain is used, and for JIC 0.1I19 generally, please cut pin 1.