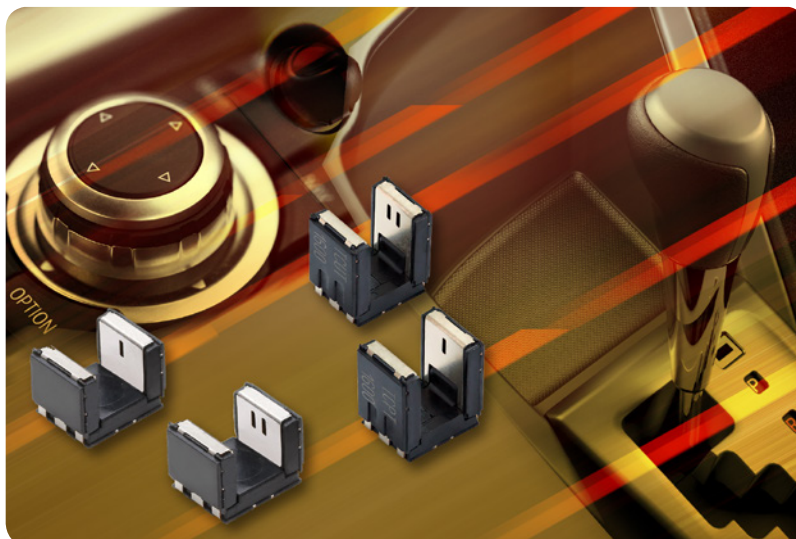


Industry's Most Reliable and Robust SMD Transmissive Sensors



FEATURES

- Wide gap width of 3.0 mm
- Aperture width of 0.3 mm
- Channel distance (center to center): 0.8 mm
- Emitter wavelength: 950 nm
- Single- and dual-channel options

BENEFITS

- Fully AEC-Q101 qualified
- Released for high operating temperatures of up to 125 °C
- Moisture sensitivity level (MSL): 1 (Unlimited floor life)
- Available in different dome heights for additional mechanical tolerances

APPLICATIONS

Optimized for a broad array of market applications ranging from automotive to industrial

- Sensors for motion, speed, and direction
- Ignition locks, adaptive headlights, and electric power steering (EPS) systems
- Encoder for interior rotary knobs (climate panel, steering wheel switches, iDrive)
- Position sensors for encoders in high-temperature environments, such as close to motors

RESOURCES

- Datasheets: <http://www.vishay.com/optical-sensors/>
- Application Notes: <http://www.vishay.com/doc?81452>
- Optoelectronics Portfolio: <http://www.vishay.com/optoelectronics/>
- For technical questions, contact sensorstechsupport@vishay.com



APPLICATIONS



Adaptive
Headlights

Rotary
Knobs

Electric
Power Steerings

Motor
Drives

TRANSMISSIVE SENSORS, ANALOG OUTPUT

PART NUMBER ⁽¹⁾	PACKAGE		GAP (mm)	APERTURE (mm)	TYPICAL OUTPUT CURRENT (mA)	ON / OFF TIME T _{ON} / T _{OFF} (μs)	OPERATING TEMP MAX
	L X W (mm)	H (mm)					
TCPT1300X01	5.5 x 4.0	4.0	3.0	0.3	0.6	20 / 30	+105 °C
TCUT1300X01 ⁽²⁾	5.5 x 4.0	4.0	3.0	0.3	0.6	20 / 30	+105 °C
TCPT1350X01	5.5 x 4.0	4.0	3.0	0.3	1.6	9 / 16	+125 °C
TCUT1350X01 ⁽²⁾	5.5 x 4.0	4.0	3.0	0.3	1.6	9 / 16	+125 °C
TCPT1600X01 ⁽³⁾	5.5 x 4.0	5.7	3.0	0.3	1.6	9 / 16	+105 °C
TCUT1600X01 ⁽²⁾⁽³⁾	5.5 x 4.0	5.7	3.0	0.3	1.6	9 / 16	+105 °C

Notes:

(1) All optical sensors have phototransistor output

(2) Dual channel

(3) Release Pending

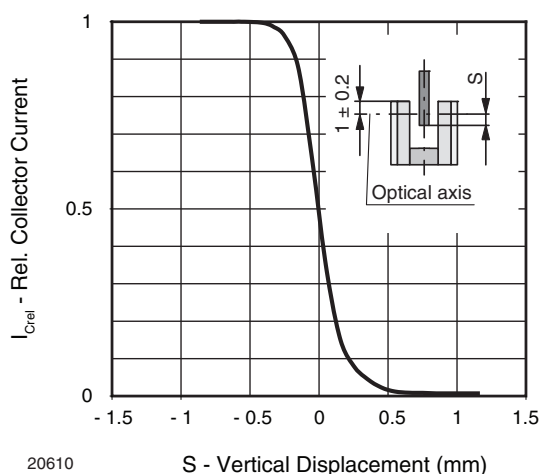


Fig. 13 - Relative Collector Current vs. Vertical Displacement

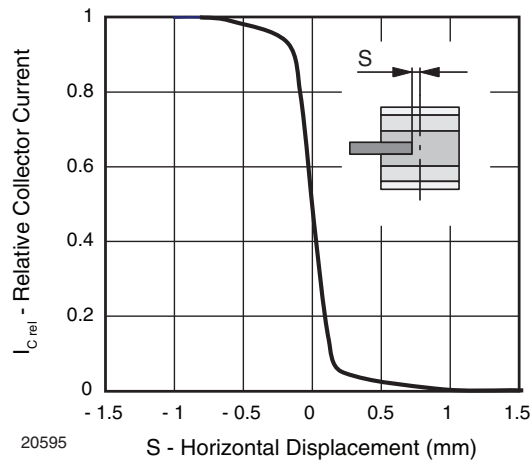


Fig. 12 - Relative Collector Current vs. Horizontal Displacement