

## Ambient Light Sensors



Fig.	Package	Peak Wave-length (nm)	Bandwidth (nm)	Photo Current Standard Typ. (µA)	View Angle (°)	Digi-Key Part No.	1	10	100	Vishay Part No.
1	0805 SMD	550	450 - 610	12	120	751-1056-1-ND† 751-1056-2-ND‡	.92 867.39/3,000	.73 —	.63	TEMT6200FX01 TEMP6200FX01
2	1206 SMD	540	430 - 610	0.04	120	751-1051-1-ND† 751-1051-2-ND‡	1.79 1659.20/3,000	1.37 —	1.17	TEMD6010FX01 TEMD6010FX01
	1206 SMD	570	360 - 970	50	120	751-1055-1-ND† 751-1055-2-ND‡	1.05 985.00/3,000	.83 —	.71	TEMT6000X01 TEMT6000X01
3	3mm	570	360 - 970	200	60	751-1057-ND	.51	.40	.31	TEPT4400
4	5mm	570	360 - 970	350	40	751-1058-ND	.54	.42	.33	TEPT5600
5	5mm	570	360 - 970	75	100	751-1059-ND	.54	.42	.33	TEPT5700

† Cut Tape ‡ Tape and Reel

## Reflective Sensors



Fig.	Operating Range (mm)	Peak Operating Distance (mm)	Output	Package	Digi-Key Part No.	1	10	100	Vishay Part No.
6	0 - 4.5	≤0.5	Transistor	—	751-1025-ND	.91	.74	.61	CNY70
7	0.2 - 4.0	1	Transistor	Straight Leads Bent Leads	751-1031-ND	.83	.72	.55	TCRT1000
					751-1032-ND	.85	.69	.57	TCRT1010
8	0.2 - 15	2.5	Transistor	—	751-1033-5-ND	.83	.72	.55	TCRT5000
					751-1034-5-ND	.83	.72	.55	TCRT5000L
9	2 - 25	6	PIN Photodiode	—	751-1029-1-ND†	2.28	1.74	1.50	TCND5000
					751-1029-2-ND‡	—	1410.04/2,000	—	TCND5000

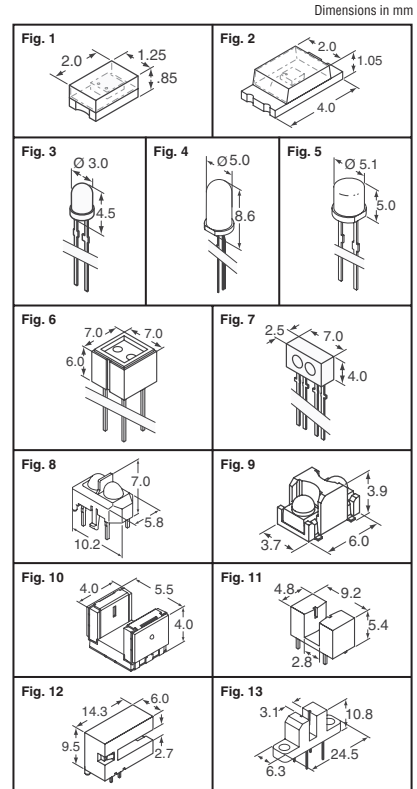
† Cut Tape ‡ Tape and Reel

## Transmissive or Interrupter Sensors



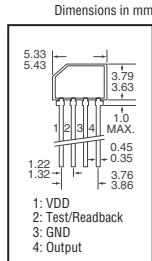
Fig.	Gap (mm)	Package	Aperture (mm)	Rise/Fall Time (µs)	Digi-Key Part No.	1	10	100	Cut Tape Price Each	Tape and Reel Pricing 2,000	Vishay Part No.
10	3.0	—	0.3	20 / 30	751-1030-1-ND	1.55	1.23	1.05	487.11/M	487.11/M	TCPT1300X01
11	2.8	—	0.3	20 / 30	751-1040-1-ND	1.76	1.35	1.16	545.52/M	545.52/M	TCUT1300X01
					751-1036-5-ND†	.81	.65	.54	—	—	TCST1230
12	2.7	—	0.5	15 / 10	751-1039-5-ND†	1.19	1.03	.80	—	—	TCST5250
					751-1035-5-ND†	1.05	.85	.71	—	—	TCST1202
13	3.1	w/o flange	0.5	10 / 8	751-1037-5-ND†	1.17	.92	.77	—	—	TCST2202
		with flange	0.25	10 / 8	751-1038-5-ND†	1.31	1.03	.87	—	—	TCST2300

† Tube ‡ For Tape & Reel part number, change 1-ND to 2-ND.



## Programmable Linear Hall Effect ICs

- Features:**
- Quad switched/chopper stabilized
  - Ratio metric output for A/D interface
  - Adjustable quiescent voltage (VOQ)
  - Very low quiescent voltage temperature drift
  - Adjustable sensitivity
  - Adjustable temperature compensation of sensitivity



Description	Temp. Range (°C)	Package	Digi-Key Part No.	1	10	25	50
Precision Programmable Linear Hall IC	-40 - 85	4-SIP(VA)	MLX90215EVA-ND◆	7.18	5.39	4.46	3.72
Precision Programmable Linear Hall IC	-40 - 150	4-SIP(VA)	MLX90215LVA-ND◆	7.47	5.62	4.64	3.87
Precision Programmed Linear Hall IC, 10mV/mT, 2.5V			MLX90215LVA-BC03-ND	13.33	10.02	8.28	6.90
Precision Programmed Linear Hall IC, 20mV/mT, 2.5V			MLX90215LVA-CC03-ND	13.33	10.02	8.28	6.90
Precision Programmed Linear Hall IC, 50mV/mT, 2.5V			MLX90215LVA-GC03-ND	13.33	10.02	8.28	6.90
Precision Programmed Linear Hall IC, 100mV/mT, 1V			MLX90215LVA-LA03-ND	13.33	10.02	8.28	6.90
Precision Programmed Linear Hall IC, 100mV/mT, 2.5V	MLX90215LVA-LC03-ND	13.33	10.02	8.28	6.90		
Daughter Board for PTC Devices.....	—	—	PTC-04-DB-90316-ND	104.81	—	—	—
Programmer for PTC Devices.....	—	—	PTC-04-ND	1088.56	—	—	—

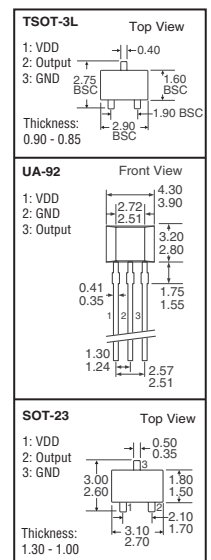
◆ RoHS Compliant

## Hall Effect Sensor ICs — US Series



Package	Supply Voltage	Operating Point (mT)	Release Point (mT)	Output Type	Operating Type†	Temperature Range	Digi-Key Part No.	1	10	25	100	Digi-Key Part No.	Tape & Reel Pricing 3,000		
TSOT-3L UA-92 SOT-23	3.5 - 24	1.0	5.0	9.0	-9.0	-5.0	-1.0	Open Drain	Bidirectional	-40°C - 85°C	US1881ESECT-ND◆	1.23	.93	.72	43
											US1881EUA-ND\$	1.29	.98	.75	45
											US1881LSOCT-ND	1.21	.94	.73	43
TSOT-3L UA-92	3.5 - 24	0.5	—	9.5	-9.5	—	-0.5	Open Drain	Bidirectional	-40°C - 150°C	US1881LUA-ND\$	1.44	1.09	.84	50
											US1881LSECT-ND◆	1.37	1.03	.80	47
											US2881EEOCT-ND	1.41	1.10	.85	51
SOT-23 UA-92	3.5 - 24	0.5	2.0	4.5	-4.5	-2.0	-0.5	Open Drain	Bidirectional	-40°C - 85°C	US2881ESECT-ND◆	1.37	1.03	.80	47
											US2881EUA-ND\$	1.44	1.09	.84	50
											US2881LSOCT-ND	1.52	1.18	.91	55
SOT-23 UA-92	3.5 - 24	-3.0	—	6.0	-6.0	—	3.0	Open Drain	Bipolar	-40°C - 85°C	US2882EEOCT-ND	1.26	.98	.76	45
											US2882ESECT-ND◆	1.30	.98	.76	45
											US2882EUA-ND\$	1.37	1.03	.80	47
SOT-23 UA-92	3.5 - 24	-2.0	2.0	6.0	-6.0	-2.0	2.0	Open Drain	Bidirectional	-40°C - 150°C	US2882LSOCT-ND	1.26	.98	.76	45
											US2882LSECT-ND◆	1.52	1.15	.88	52
											US2882LUA-ND\$	1.45	1.09	.84	50
TSOT-3L UA-92	3.5 - 24	-3.5	—	6.0	-6.0	—	3.5	Open Drain	Bidirectional	-40°C - 85°C	US4881EUA-ND\$	1.29	.98	.75	45
											US4881LUA-ND\$	1.44	1.09	.84	50
											US5881EUA-ND\$	1.50	1.13	.87	52
UA-92	2.2 - 18	0.5	2.0	4.5	-4.5	-2.0	-0.5	Open Drain	Bidirectional	-40°C - 150°C	US5881LUA-ND\$	1.67	1.26	.97	58
											US5781EEOCT-ND◆	1.58	1.19	.92	55
											US5781EUA-ND\$	1.63	1.23	.95	56
TSOT-3L UA-92	3.5 - 24	7	—	3.5	7.5	10	Open Drain	Unipolar	-40°C - 85°C	US5781ESECT-ND◆	1.67	1.26	.97	58	
										US5781LSECT-ND◆	1.76	1.33	1.02	61	
										US5782LSECT-ND◆	1.82	1.37	1.05	63	
TSOT-3L UA-92	3.5 - 24	—	—	—	—	—	Open Drain	Unipolar	-40°C - 150°C	US5781LUA-ND\$	1.85	1.40	1.07	64	
										US5782LSECT-ND◆	1.85	1.40	1.07	64	

◆ RoHS Compliant † Unidirectional is only sensitive to either a north or south pole of a magnet. Bidirectional is sensitive to alternating magnetic fields of both north and south poles. \$ Bulk



Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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