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## SEMICONDUCTOR GENERAL CATALOG

### 半導体製品総覧表2019年1月版

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## Sensors

### センサ

Linear Image Sensors / リニアイメージセンサ

Magnetic Sensors / 磁気センサ

## Linear Image Sensors / リニアイメージセンサ

Part Number	Style	Photosensitive Pixels (Picture Element)			Sensitivity (Typ.) (V/lx · s)	Data Rate (Max) (MHz)	Other Features
		Type/ Lamp	Effective Pixels	Size (μm)			
TCD1103GFG	Lens reduction type	B/W	1500	5.5 x 64	79	2	Electronic shutter (ICG) function Sample-and-hold
TCD1209DG			2048	14 x 14	31	20	
TCD1254GFG			2500	5.25 x 64	103	2	Electronic shutter (ICG) function Sample-and-hold
TCD1256GAG			2500	5.25 x 64	103	2	Electronic shutter (ICG) function Sample-and-hold
TCD1304DG			3648	8 x 200	160	1	Electronic shutter (ICG) function Sample-and-hold
TCD1706DG			7400	4.7 x 4.7	15	25 x 4	
TCD1711DG			7450	4.7 x 4.7	15	30 x 2	
TCD2564DG		Color	5400 x 3 Line	7 x 7	R:9.6, G:8.9, B:3.8	30 x 2	
TCD2565BFG			5400 x 4 Line	5.25 x 5.25	R:10.2, G:9.2, B:4.0, B/W:14.7	Color:35, B/W:35 x 2	2-line distance (color)
TCD2566BFG			5340 x 4 Line	Color:5.25 x 6.825 B/W:5.25 x 8.4	TDI"ON": R:26.2, G:35.3, B:19.9, TDI"OFF": R:13.1, G:17.7, B:10.0 B/W:59.4	Color:35, B/W:35 x 2	TDI
TCD2569BFG			5340 x 3 Line	5.25 x 5.25	R:13.2, G:15.0, B:5.9	35	2-line distance Sample-and-hold
TCD2711DG			7500 x 3 Line	9.325 x 9.325	R:18.9, G:20.4, B:13.4	35 x 2	2-line distance
TCD2712DG			7500 x 3 Line	9.325 x 9.325	R:14.1, G:22.2, B:9.1	30 x 4	
TCD2717BFG			7500 x 4 Line	4.7 x 4.7	R:8.0, G:7.2, B:3.1, B/W:11.5	Color:35, B/W:35 x 2	2-line distance (color)
TCD2719DG			7300 x 3 Line	10 x 10	R:11.5, G:10.7, B:4.8	35 x 4	Sample-and-hold
TCD2720BFG			7500 x 4 Line	4.7 x 4.7	R:8.0, G:7.2, B:5.4, B/W:11.5	Color:35 x 2, B/W:35 x 4	2-line distance (color)
TCD2723BFG			7450 x 3 Line	4.7 x 4.7	TDI"ON": R:26.6, G:27.1, B:16.3 TDI"OFF": R:13.3, G:13.6, B:8.2	30 x 2	TDI
TCD2724DG-1			7450 x 3 Line	4.7 x 4.7	S/H"ON"R:12.8, G:15.0, B:5.2 S/H"OFF"R:14.3, G:16.9, B:5.8	35 x 2	High sensitivity, Sample-and-hold, 3.3V driving, Low capacitance
TCD2725BFG			7450 x 3 Line	4.7 x 4.7	S/H"ON"R:12.8, G:11.9, B:5.2 S/H"OFF"R:14.3, G:13.4, B:5.8	35 x 2	High sensitivity, Sample-and-hold, 3.3V driving, Low terminal capacity
TCD2918BFG			10680 x 3 Line	2.625 x 8.4	High gain: R:18.9, G:20.3, B:11.1 Low gain: R:13.9, G:15.2, B:8.1	35	High sensitivity, 3.3V driving
TCD2919BFG	10680 x 4 Line	2.625 x 8.4	High gain: R:12.2, G:13.4, B:7.9, B/W:36.8 Low gain: R:8.3, G:9.0, B:5.3, B/W:24.7	Color:35, B/W:35 x 2	High sensitivity, 3.3V driving, Low capacitance		

Package	Resolution (DPI)	Applications	Remarks
16PIN GLCC	—	Barcode readers	Dry-packed
22PIN CERDIP	—	Barcode readers	
16PIN GLCC	—	Barcode readers	Dry-packed
26PIN WCSP	—	Barcode readers	Dry-packed
22PIN CERDIP	—	Barcode readers	
22PIN CERDIP	A3 600	Photocopiers	
22PIN CERDIP	A3 600	Photocopiers	
22PIN CERDIP	A4 600	Photocopiers	
22PIN CLCC	A4 600	Photocopiers	
22PIN CLCC	A4 600	Color scanners, Laser printers	
22PIN CLCC	A4 600	Color scanners, Laser printers	ES: Now
68PIN CERDIP	A3 600	Color scanners, Photocopiers	
68PIN CERDIP	A3 600	Color scanners, Photocopiers	
32PIN CLCC	A3 600	Color scanners, Photocopiers	
68PIN CERDIP	A3 600	Color scanners, Photocopiers	
32PIN CLCC	A3 600	Color scanners, Photocopiers	
32PIN CLCC	A3 600	Color scanners, Photocopiers	
22PIN CERDIP	A3 600	Color scanners, Photocopiers	
32PIN CLCC	A3 600	Color scanners, Photocopiers	
22PIN CLCC	A4 1200	Color scanners, Laser printers	
22PIN CLCC	A4 1200	Color scanners, Laser printers	

## Magnetic Sensors / 磁気センサ

### Magnetic Sensors / 磁気センサ

(Digital Output) / (デジタル出力)

Part Number	Pole	Output	Supply Voltage V <sub>CC</sub> (V)			Supply Current @ V <sub>CC</sub> = 2.3 to 2.7 V						Magnetic Flux Density						Operating Frequency (Hz)			Package
						Supply Current I <sub>CC</sub> (μA)			Operating Current I <sub>CCON</sub> (mA)			Operating Point  Bon  (mT)			Releasing Point  Boff  (mT)						
			min	typ.	max	min	typ.	max	min	typ.	max	min	typ.	max	min	typ.	max	min	typ.	max	
TCS30SPU	S	Push-pull	2.3	—	3.6	—	5.5	9.5	—	0.7	1.3	—	1.8	2.5	0.3	0.8	—	—	25	—	UFV
TCS30NPU	N	Push-pull	2.3	—	3.6	—	5.5	9.5	—	0.7	1.3	—	1.8	2.5	0.3	0.8	—	—	25	—	
TCS30DPU	S/N	Push-pull	2.3	—	3.6	—	8.5	13.2	—	0.7	1.3	—	1.8	2.5	0.3	0.8	—	—	25	—	
TCS30DLU		Open-drain	2.3	—	3.6	—	8.5	13.2	—	0.7	1.3	—	1.8	2.5	0.3	0.8	—	—	25	—	
TCS40DPR	S/N	Push-Pull	2.3	—	5.5	—	8.5 <sup>(1)</sup>	—	—	0.8 <sup>(1)</sup>	—	—	3.4	4.4	0.9	2.0	—	—	25	—	SOT-23F
TCS40DLR		Open-Drain	2.3	—	5.5	—	8.5 <sup>(1)</sup>	—	—	0.8 <sup>(1)</sup>	—	—	3.4	4.4	0.9	2.0	—	—	25	—	

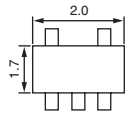
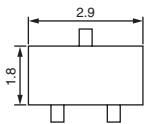
Note (1): When V<sub>CC</sub> = 2.5 V / V<sub>CC</sub> = 2.5 V時

- The UFV package measures 2.0 x 2.1 x 0.7 mm and is a variant of SC-88A.
- UFVパッケージは、2.0 x 2.1 x 0.7 mm (SC-88A類似) です。

### Package Lineup / パッケージラインアップ

SOT-23F

UFV



(Unit: mm)

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