



TELEDYNE
JUDSON TECHNOLOGIES
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Introducing:

**Specifications for Performance Enhanced
2.6 μ m Extended InGaAs Detectors
10-23-2017**

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Use and Disclosure of Data

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2.6μm InGaAs Performance Enhanced Specifications at Room Temperatures

Shunt Impedance specifications are increased by a factor of 2
 Dark Current specifications are reduced by a factor of 3 to 4
 D* specifications are increased by a factor of 1.4

Detector Model Number	Active Size Diameter (mm)	Operating Temp. (°C)	50% Cutoff Wavelength * (micron)	Peak Wavelength * (micron)	Peak Responsivity (A/W) min	Shunt impedance (Ohm)		Dark Current (A) @ Vr (max)		Peak D* (Jones)		NEP (W/rt-Hz) @ peak wavelength		Max Reverse Bias (V) typ	Capacitance (pF) @ 0V typ
						min	typical	typ	max	min	typ	max	typ		
J23-18I-R250U-2.6	0.25	22	2.55+/-0.05	2.20+/-0.05	1.20	5.0E+04	1.0E+05	3.0E-07	3.0E-06	4.7E+10	6.6E+10	4.8E-13	3.4E-13	0.5	75
J23-18I-R500U-2.6	0.50	22	2.55+/-0.05	2.20+/-0.05	1.20	1.6E+04	3.2E+04	1.0E-06	1.0E-05	5.3E+10	7.5E+10	8.4E-13	5.9E-13	0.5	250
J23-18I-R01M-2.6	1.00	22	2.55+/-0.05	2.20+/-0.05	1.20	5.0E+03	1.0E+04	3.0E-06	3.0E-05	5.9E+10	8.3E+10	1.5E-12	1.1E-12	0.5	1000
J23-5I-R02M-2.6	2.00	22	2.55+/-0.05	2.20+/-0.05	1.20	1.0E+03	2.0E+03	1.0E-05	1.0E-04	5.3E+10	7.5E+10	3.4E-12	2.4E-12	0.5	4000
J23-5I-R03M-2.6	3.00	22	2.55+/-0.05	2.20+/-0.05	1.10	3.2E+02	6.4E+02	3.0E-05	3.0E-04	4.1E+10	5.8E+10	6.5E-12	4.6E-12	0.5	9000
J23-8I-R05M-2.6	5.00	22	2.55+/-0.05	2.20+/-0.05	1.00	8.0E+01	1.6E+02	1.0E-04	1.0E-03	3.1E+10	4.4E+10	1.4E-11	1.0E-11	0.5	25000
* Tighter tolerance for cutoff and peak wavelengths may be available upon customer request.															
All spec are for detector operation at 0V bias and 22C, unless otherwise specified.															

2.6μm InGaAs Performance Enhanced Specifications at TEC Temperatures

Detector Model Number	Active Size Diameter (mm)	Operating Temp. (°C)	50% Cutoff Wavelength * (micron)	Peak Responsivity (A/W) min	Shunt impedance (Ohm)		Peak D* (Jones)		NEP (W/rt-Hz) @ peak wavelength		Capacitance (pF) @ 0V typ
					min	typical	min	typ	max	typ	
J23TE1-37S-R250U-2.6	0.25	-20	2.47+/-0.05	1.2	1.4E+06	2.8E+06	2.7E+11	3.8E+11	8.3E-14	5.9E-14	75
J23TE1-37S-R500U-2.6	0.50	-20	2.47+/-0.05	1.2	5.2E+05	1.0E+06	3.2E+11	4.6E+11	1.4E-13	9.7E-14	250
J23TE1-37S-R01M-2.6	1.00	-20	2.47+/-0.05	1.2	1.6E+05	3.2E+05	3.6E+11	5.1E+11	2.5E-13	1.7E-13	1000
J23TE1-37S-R02M-2.6	2.00	-20	2.47+/-0.05	1.2	2.6E+04	5.2E+04	2.9E+11	4.1E+11	6.1E-13	4.3E-13	4000
J23TE1-66C-R03M-2.6	3.00	-20	2.47+/-0.05	1.2	7.0E+03	1.4E+04	2.3E+11	3.2E+11	1.2E-12	8.3E-13	9000
J23TE1-66C-R05M-2.6	5.00	-20	2.47+/-0.05	1.1	1.7E+03	3.4E+03	1.7E+11	2.4E+11	2.6E-12	1.8E-12	25000
J23TE2-66C-R250U-2.6	0.25	-40	2.43+/-0.05	1.2	6.0E+06	1.2E+07	5.7E+11	8.1E+11	3.9E-14	2.7E-14	75
J23TE2-66C-R500U-2.6	0.50	-40	2.43+/-0.05	1.2	2.6E+06	5.2E+06	7.6E+11	1.1E+12	5.9E-14	4.1E-14	250
J23TE2-66C-R01M-2.6	1.00	-40	2.43+/-0.05	1.2	8.0E+05	1.6E+06	8.4E+11	1.2E+12	1.1E-13	7.5E-14	1000
J23TE2-66C-R02M-2.6	2.00	-40	2.43+/-0.05	1.2	1.2E+05	2.4E+05	6.5E+11	9.2E+11	2.7E-13	1.9E-13	4000
J23TE2-66C-R03M-2.6	3.00	-40	2.43+/-0.05	1.2	3.0E+04	6.0E+04	4.9E+11	6.9E+11	5.5E-13	3.9E-13	9000
J23TE2-66C-R05M-2.6	5.00	-40	2.43+/-0.05	1.2	7.0E+03	1.4E+04	3.9E+11	5.5E+11	1.1E-12	8.0E-13	25000
J23TE3-66C-R250U-2.6	0.25	-65	2.40+/-0.05	1.2	2.8E+07	5.6E+07	1.3E+12	1.9E+12	1.7E-14	1.2E-14	75
J23TE3-66C-R500U-2.6	0.50	-65	2.40+/-0.05	1.2	1.2E+07	2.4E+07	1.7E+12	2.4E+12	2.6E-14	1.8E-14	250
J23TE3-66C-R01M-2.6	1.00	-65	2.40+/-0.05	1.2	4.0E+06	8.0E+06	2.0E+12	2.8E+12	4.5E-14	3.2E-14	1000
J23TE3-66C-R02M-2.6	2.00	-65	2.40+/-0.05	1.2	5.8E+05	1.2E+06	1.5E+12	2.1E+12	1.2E-13	8.3E-14	4000
J23TE3-66C-R03M-2.6	3.00	-65	2.40+/-0.05	1.2	1.4E+05	2.8E+05	1.1E+12	1.6E+12	2.4E-13	1.7E-13	9000
J23TE3-66C-R05M-2.6	5.00	-65	2.40+/-0.05	1.2	3.0E+04	6.0E+04	8.6E+11	1.2E+12	5.2E-13	3.6E-13	25000
J23TE4-3CN-R250U-2.6	0.25	-85	2.38+/-0.05	1.2	8.0E+07	1.6E+08	2.3E+12	3.3E+12	9.5E-15	6.7E-15	75
J23TE4-3CN-R500U-2.6	0.50	-85	2.38+/-0.05	1.2	3.6E+07	7.2E+07	3.1E+12	4.4E+12	1.4E-14	1.0E-14	250
J23TE4-3CN-R01M-2.6	1.00	-85	2.38+/-0.05	1.2	1.2E+07	2.4E+07	3.6E+12	5.1E+12	2.5E-14	1.7E-14	1000
J23TE4-3CN-R02M-2.6	2.00	-85	2.38+/-0.05	1.2	1.7E+06	3.4E+06	2.7E+12	3.8E+12	6.5E-14	4.6E-14	4000
J23TE4-3CN-R03M-2.6	3.00	-85	2.38+/-0.05	1.2	4.0E+05	8.0E+05	2.0E+12	2.8E+12	1.3E-13	9.5E-14	9000
J23TE4-3CN-R05M-2.6	5.00	-85	2.38+/-0.05	1.2	8.0E+04	1.6E+05	1.5E+12	2.1E+12	3.0E-13	2.1E-13	25000

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