Industry Standard Silicon Photodiodes

Silicon Photodiodes – VTD Series

Applications

- Pulse oximetry
- Automotive
- Surface mount assembly process

Features and Benefits

- Alternate source for industry standard photodiodes
- Surface mount package available
- Available in package with integrated IR filtering
- Large area PIN available on ceramic package
- RoHs compliant

Product Description

The VTD series are photodiodes which have been used in many applications as replacement for competitive devices.

Product Table

Silicon Photodiodes – VTD Series

Symbol / Unit	Industry Equivalent	Package	Active Area mm²	Short Circuit Current min I_{SC} µA	Maximum Dark Current @ VR = 10V (nA)	Junction Capacitance typ C_J nF	Radiometric Sensitivity @ λ_P typ S_R A/W	Spectral Range λ_{RANGE} nm	Typical Peak Wavelength λ_P nm	Noise Equivalent Power typ NEP W/√Hz
VTD31AAH	CLD31AA	Ceramic	16.73	150 @ 5 mW/cm², 2850K	50 @ V_R = 15V	Max 500 @ V_R = 0V	0.55	400-1150	860	
VTD34H	BPW34	Mini-Dip	7.45	50 @ 1000 Lux, 2850K	30	60 @ V_R = 0V	0.6	400-1100	900	4.8 X 10-14
VTD34FH	BPW34F	Mini-Dip	7.45	15 @ 0.5 mW/cm², 940 nm	30	60 @ V_R = 0V	0.6	725-1150	940	4.8 X 10-14
VTD34SMH	BPW34	SMT	7.45	50 @ 1000 Lux, 2850K	30	Max 40 @ V_R = 3V	0.6	400-1100	900	4.8 X 10-14
VTD34FSMH	BPW34F	SMT	7.45	15 @ 0.5 mW/cm², 940 nm	30	Max 80 @ V_R = 3V	0.6	725-1150	940	-
VTD205H	SFH205	TO-92	7.41	15 @ 0.5 mW/cm², 940 nm	30	72 @ V_R = 0V	0.6	800-1100	925	-
VTD205KH	SFH205K	TO-92	7.41	50 @ 1000 Lux, 2850K	30	72 @ V_R = 0V	0.6	400-1100	925	-
VTD206H	SFH206	TO-92	7.41	15 @ 0.5 mW/cm², 940 nm	30	72 @ V_R = 0V	0.6	750-1100	925	-
VTD206KH	SFH206K	TO-92	7.41	50 @ 1000 Lux, 2850K	30	72 @ V_R = 0V	0.6	400-1100	925	-
VTH2090H	S1723-04	Black Ceramic	84.64	65 @ 100 Lux	10 @ V_R = 30V	70 @ V_R = 30V	0.6	400-1100	960	4 X 10-14

Figure 1

Package Drawing – VTD Series – Mini-DIP Package

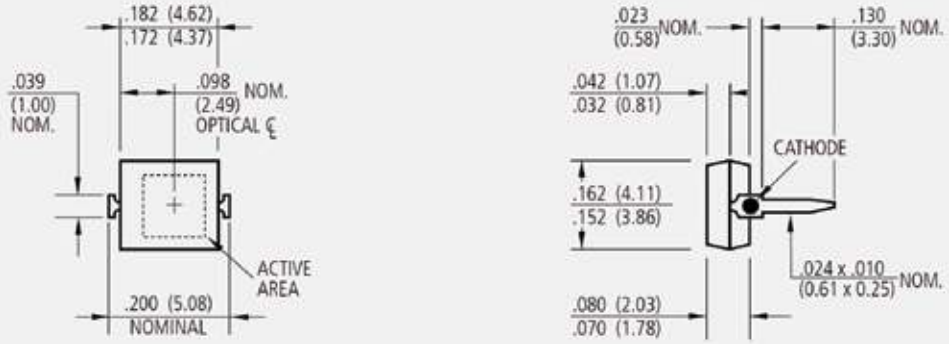

Figure 2

Package Drawing – VTD Series – SMT Package

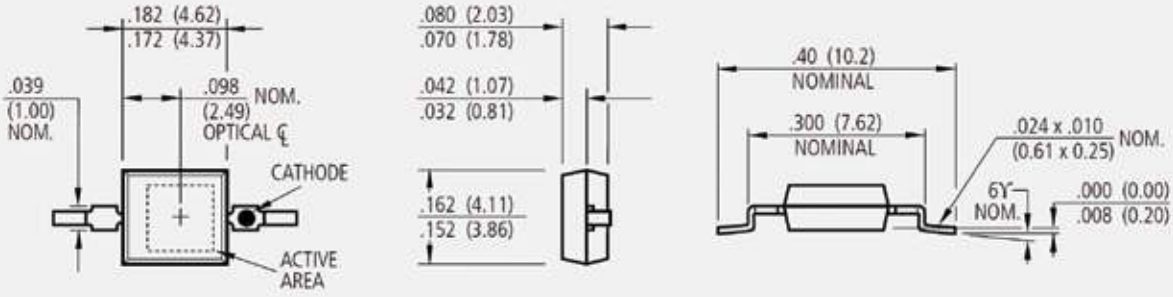

Figure 3

Package Drawing – VTD Series – TO-92 Package