Low 1/f (Flicker) Noise Diodes

Part Number 5082-	Package Outline	Min. Breakdown Voltage V_{BR} (V)	Max. Forward Voltage V_F (mV)	V_F = 1 V Max. at Forward Current I_F (mA)	Max. Reverse Leakage Current I_R (nA) at V_R (V)		Max. Capacitance C_T (pF)
2301	15	30	400	50	300	15	1.0
2302	15	30	400	35	300	15	1.0
2303	15	20	400	35	500	15	1.0
2900	15	10	400	20	100	5	1.2
Test Conditions		I_R = 10 µA	I_F = 1 mA				V_R = 0 V f = 1.0 MHz

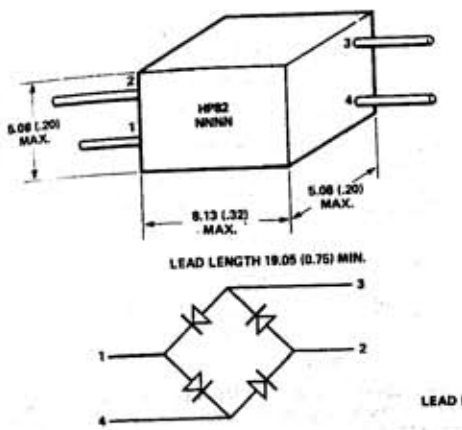
Note: Effective Carrier Lifetime (τ) for all these diodes is 100 ps maximum measured with Krakauer method at 20 mA.

Matched Pairs and Quads

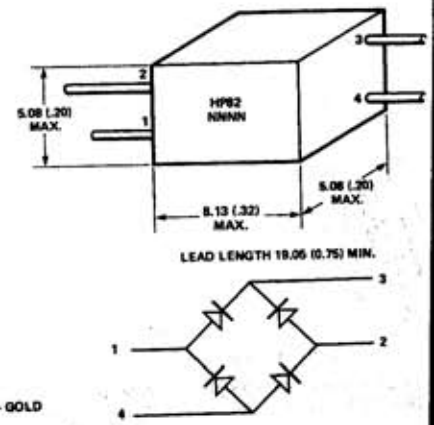
Basic Part Number 5082-	Matched Pair Un-connected	Matched Quad Un-connected	Matched Ring Quad Encapsulated G-1 Outline	Matched Bridge Quad Encapsulated G-2 Outline	Batch Matched[1]	Test Conditions
2301	5082-2306 ΔV_F = 20 mV ΔC_O = 0.2 pF					ΔV_F at I_F = 0.75, 20 mA ΔC_O at f = 1.0 MHz
2303	5082-2308 ΔV_F = 20 mV ΔC_O = 0.2 pF	5082-2370 ΔV_F = 20 mV ΔC_O = 0.2 pF	5082-2396 ΔV_F = 20 mV ΔC_O = 0.2 pF	5082-2356 ΔV_F = 20 mV ΔC_O = 0.2 pF		ΔV_F at I_F = 0.75, 20 mA ΔC_O at f = 1.0 MHz
2900	5082-2912 ΔV_F = 30 mV	5082-2970 ΔV_F = 30 mV		5082-2997 ΔV_F = 30 mV		ΔV_F at I_F = 1.0, 10 mA
2800	5082-2804 ΔV_F = 20 mV	5082-2805 ΔV_F = 20 mV			5082-2836* ΔV_F = 20 mV ΔC_O = 0.1 pF	ΔV_F at I_F = 0.5, 5 mA *I_F = 10 mA ΔC_O at f = 1.0 MHz
2811		5082-2815 ΔV_F = 20 mV ΔC_O = 0.2 pF	5082-2814 ΔV_F = 20 mV ΔC_O = 0.2 pF	5082-2813 ΔV_F = 20 mV ΔC_O = 0.2 pF	5082-2826 ΔV_F = 10 mV ΔC_O = 0.1 pF	ΔV_F at I_F = 10 mA ΔC_O at f = 1.0 MHz
2835					5082-2080 ΔV_F = 10 mV ΔC_O = 0.1 pF	ΔV_F at I_F = 10 mA ΔC_O at f = 1.0 MHz

Note:
1. Batch matched devices have a minimum batch size of 50 devices.

Outline G-1



Outline G-2



LEAD FINISH – GOLD

ALL DIMENSIONS IN MILLIMETERS (INCHES).

Typical Parameters

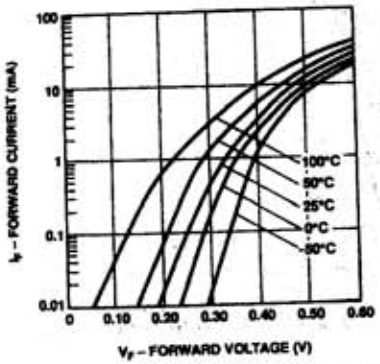


Figure 1. I-V Curve Showing Typical Temperature Variation for 5082-2300 and 5082-2900 Series Schottky Diodes.

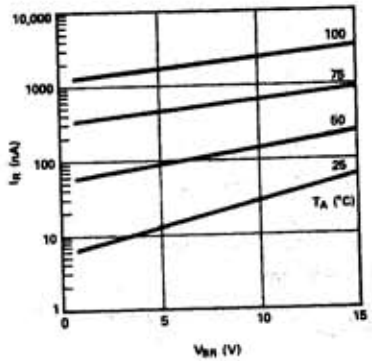


Figure 2. 5082-2300 Series Typical Reverse Cu Reverse Voltage at Various Temperatures.

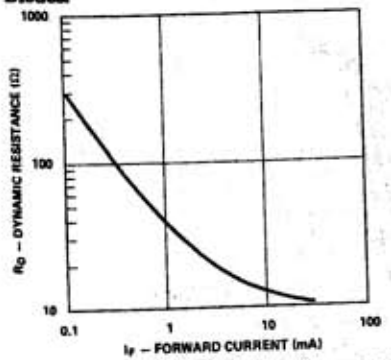


Figure 3. 5082-2300 Series and 5082-2900 Series Typical

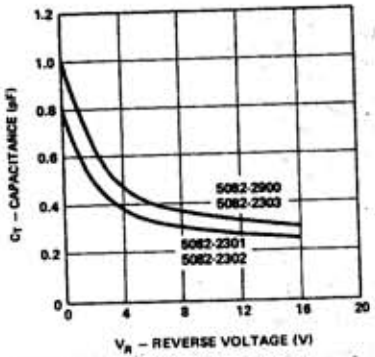


Figure 4. 5082-2300 and 5082-2900 Series Typ Capacitance vs. Reverse Voltage.