

KNOX SEMICONDUCTOR, INC.

UHF HYPERABRUPT TUNING DIODES

These implanted hyperabrupt varactors extend application frequencies up to 800 MHz with linear tuning capability between 3 and 8 volts. The diode capacitance ranges from 10.5 to 31 pF in support of the higher application frequencies. Matched sets are available.

LV2101(A) - LV2103(A)

TYPE NUMBER	C _T CAPACITANCE (pF) f = 1 MHz						T _R TUNING RATIO f = 1 MHz				Q V _R = 3 Vdc f = 50 MHz		V _{BR} (Vdc) I _r = 10 μAdc		I _R (nAdc) V _R = 10 Vdc V _R = 20 Vdc			
	V _R = 3 Vdc		V _R = 8 Vdc		V _R =20 Vdc		C•3/ C•8V		C•3V / C•20V		MIN / TYP		MIN TYP		TYP MAX		TYP MAX	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX			MIN	TYP	TYP	MAX	TYP	MAX
LV2101	10.5	12.5	4.3	5.7	2.0	2.3			5.0	5.8	300	350	22	30			10	100
LV2101A	10.9	12.1	4.6	5.4	2.0	2.3			5.0	5.8	300	350	22	30			10	100
LV2102	10.5	12.5	4.3	5.7	2.0	2.4			4.7	5.5	200	300	22	30			10	100
LV2102A	10.9	12.1	4.6	5.4	2.0	2.4			4.7	5.5	200	300	22	30			10	100
LV2103	10.5	12.5	4.3	5.7			1.9	2.7			200	300	15	18	50	500		
LV2103A	10.9	12.1	4.6	5.4			2.0	2.6			200	300	15	18	50	500		

LV2801(A) - LV2803(A)

TYPE NUMBER	C _T CAPACITANCE (pF) f = 1 MHz						TR TUNING RATIO f = 1 MHz				Q V _R = 3 Vdc f = 50 MHz		V _{BR} (Vdc) I _r = 10 μAdc		I _R (nAdc) V _R = 10 Vdc V _R = 20 Vdc			
	V _R = 3 Vdc		V _R = 8 Vdc		V _R = 20 Vdc		C•3/ C•8V		C•3V / C•20V									
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN / TYP	MIN	TYP	TYP	MAX	TYP	MAX	
LV2801	25	31	10	13.5	4.5	5.1			5.2	6.1	200	250	22	30			20	100
LV2801A	26.5	29.5	11	13	4.5	5.1			5.2	6.1	200	250	22	30			20	100
LV2802	25	31	10	13.5	4.5	5.3			4.9	5.8	150	200	22	30			20	100
LV2802A	26.5	29.5	11	13	4.5	5.3			4.9	5.8	150	200	22	30			20	100
LV2803	25	31	10	13.5			1.9	2.8			150	200	15	18	50	500		
LV2803A	26.5	29.5	11	13			2.0	2.7			150	200	15	18	50	500		

Package Style
Operating Temperature (Topr)
Storage Temperature (Tstg)
Other packages are available

DO-7
-55° to + 150°
-65° to + 200°C