

HF-VHF SUPER HYPERABRUPT JUNCTION VARACTOR DIODES

DESCRIPTION

These super hyperabrupt VVC's are for tuning LC resonant circuits from video frequencies up to 100 MHz with frequency ratios as high as 4 to 1; also for wide deviation voltage-tuned crystal oscillators. Two volt capacitances from 57 to 350 pF are offered in this designer-oriented family. These diodes feature exceptionally large capacitance ratios, very high Q, straight-line frequency performance over a 1.5 to 4 volt tuning range, and are available in closely matched sets.

RATINGS

Minimum Voltage Breakdown: 12 V @ 10 μ A
 Maximum Leakage Current: See Table Below
 Junction Operating Temp.: -55°C to +125°C
 Storage Temp.: -65°C to +200°C

ELECTRICAL SPECIFICATIONS: T_A=25°C

MODEL NUMBER	C _T DIODE CAPACITANCE (pF) f=1 MHz				T _R TUNING RATIO f=1 MHz		Q V _R =1.25Vdc		Q V _R =2 Vdc		V _{BR} (Vdc) I _R = 10 μ Adc MIN / TYP	I _R ¹ (nAdc) V _R = 10 Vdc	PACKAGE 2
	V _R = 1.25 Vdc MIN / TYP / MAX	V _R = 2 Vdc MIN / TYP / MAX	V _R = 7 Vdc MIN / TYP / MAX	V _R = 10 Vdc MIN / TYP / MAX	C(1.25V) / C (7V) MIN / TYP / MAX	C (2V) / C (10V) MIN / TYP / MAX	f= 1 MHz MIN / TYP	f= 10 MHz MIN / TYP	f= 1 MHz MIN / TYP	f= 10 MHz MIN / TYP			
KV1401	-/81.5/-	46/57/68	-/6.1/-	4.2/4.7/5.2	-/13/-	10/12/17	-	-	-	75/140	12/20	10/50	DO-7
KV1402	-/81.5/-	46/57/68	-/6.1/-	4.2/4.7/5.2	-/13/-	10/12/17	-	-	200/700	-	12/20	50/100	DO-7
KV1403	-/81.5/-	46/57/-	-/6.1/-	-/4.7/5.2	-/13/-	10/12/-	-	-	200/700	-	12/20	100/1000	DO-7
KV1501	-/180/-	100/125/150	-/13/-	8.6/9.6/10.6	-/14/-	10/13/17.5	-	-	-	50/130	12/20	10/50	DO-7
KV1502	-/180/-	100/125/150	-/13/-	8.6/9.6/10.6	-/14/-	10/13/17.5	-	-	200/500	-	12/20	50/100	DO-7
KV1503	-/180/-	100/125/-	-/13/-	-/9.6/10.6	-/14/-	10/13/-	-	-	200/500	-	12/20	100/1000	DO-7
KV1601	-/255/-	140/175/210	-/18.5/-	12.6/14.0/15.4	-/14/-	10/12.5/17	-	-	-	50/120	12/20	10/50	DO-7
KV1602	-/255/-	140/175/210	-/18.5/-	12.6/14.0/15.4	-/14/-	10/12.5/17	-	-	200/500	-	12/20	50/100	DO-7
KV1603	-/255/-	150/175/-	-/18.5/-	-/14.0/15.4	-/14/-	10/12.5/-	-	-	200/500	-	12/20	100/1000	DO-7
KV1701	-/325/-	180/225/270	-/24/-	16.2/18.0/19.8	-/14/-	10/12.5/17	-	-	-	50/115	12/20	10/50	DO-7
KV1702	-/325/-	180/225/270	-/24/-	16.2/18.0/19.8	-/14/-	10/12.5/17	-	-	200/500	-	12/20	50/100	DO-7
KV1703	-/325/-	180/225/-	-/24/-	-/18.0/19.8	-/14/-	10/12.5/-	-	-	200/500	-	12/20	100/1000	DO-7
KV1801	450/500/550	-/350/-	30.5/35.0 /37.5	-/26.5/-	12/14/18	-/13/-	-	30/70	-	-	12/20	10/50	DO-14
KV1802	450/500/550	-/350/-	30.5/35.0 /37.5	-/26.5/-	12/14/18	-/13/-	150/300	-	-	-	12/20	50/100	DO-14
KV1803	450/500/-	-/350/-	-/35.0 /37.5	-/26.5/-	12/14/-	-/13/-	150/300	-	-	-	12/20	100/1000	DO-14

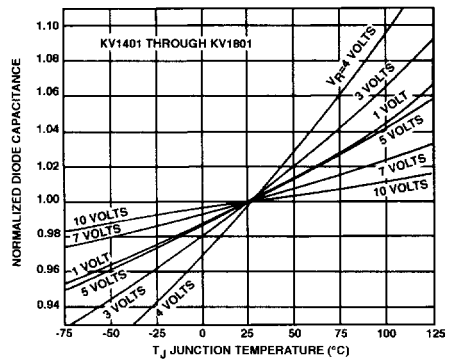
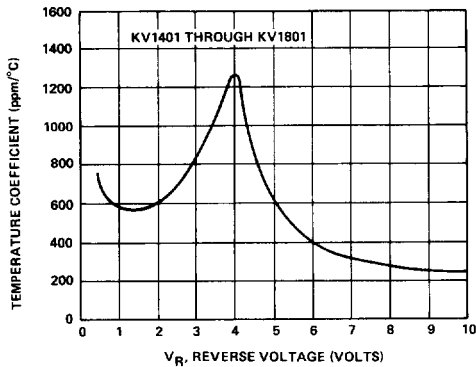
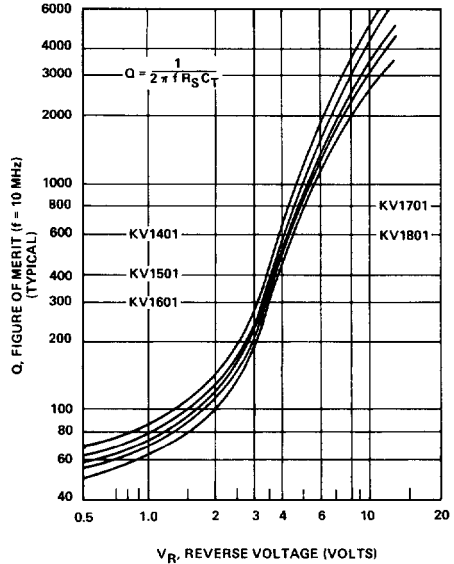
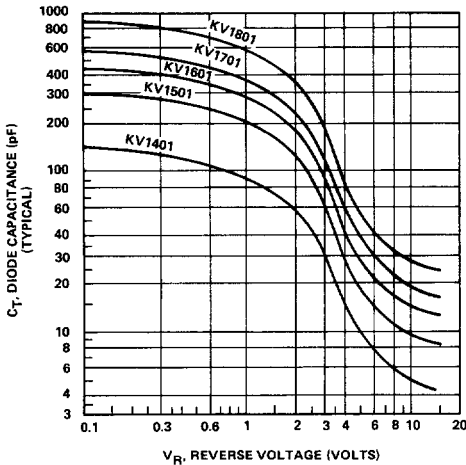
NOTES:

- +25°C
- OTHER PACKAGES AVAILABLE UPON REQUEST. SOME LIMITATIONS APPLY. CONSULT FACTORY FOR DETAILS.

Tuning Varactors

HF-VHF SUPER HYPERABRUPT JUNCTION VARACTOR DIODES

TYPICAL ELECTRICAL CHARACTERISTICS
($T_A=25^\circ\text{C}$ unless otherwise noted)



SEMICONDUCTOR OPERATION

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