

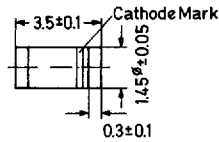
T.07-19

BB621, BB622**Tuner Diodes**

Silicon Epitaxial Planar Capacitance Diodes in MiniMelf case (MELF = **M**etal **E**lectrodes **F**ace-bonding) especially suited for automatic insertion with very wide effective capacitance variation for tuning the whole range of VHF or UHF television bands.

These diodes are available as singles or as matched sets of two or more units according to the tracking condition described below.

These diodes are delivered taped.
Details see "Taping".



Glass case MiniMELF

Weight approx. 0.05 g
Dimensions in mm

Absolute Maximum Ratings

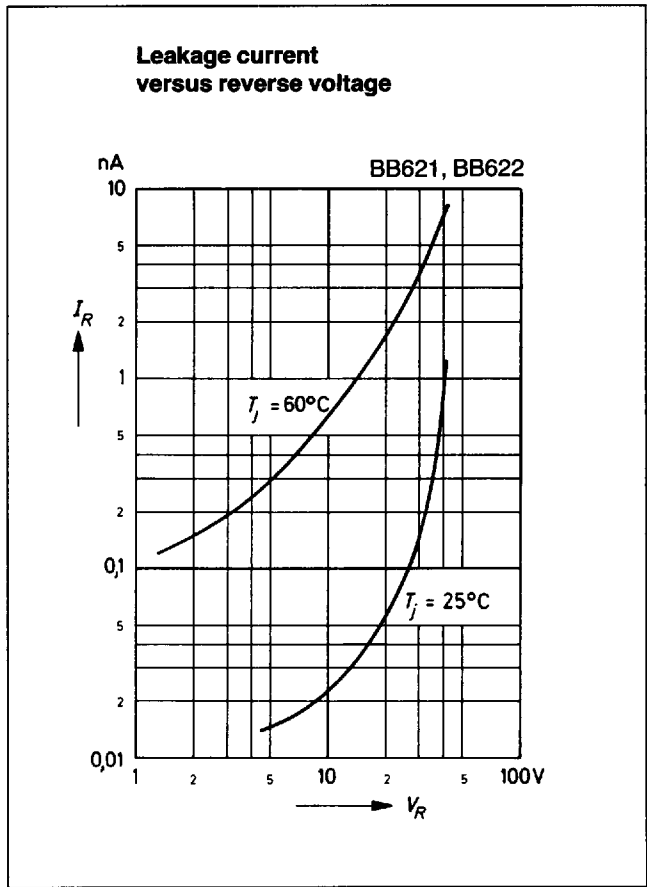
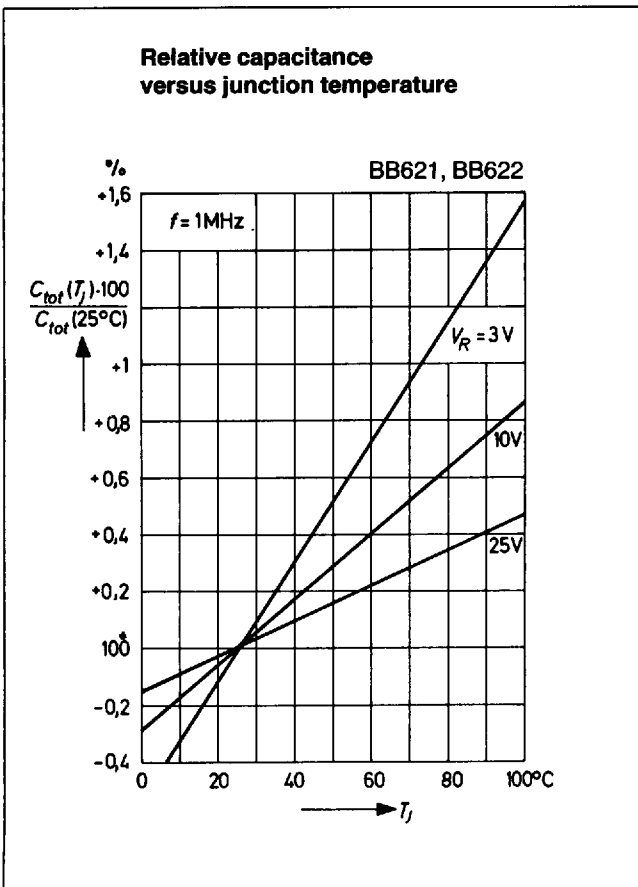
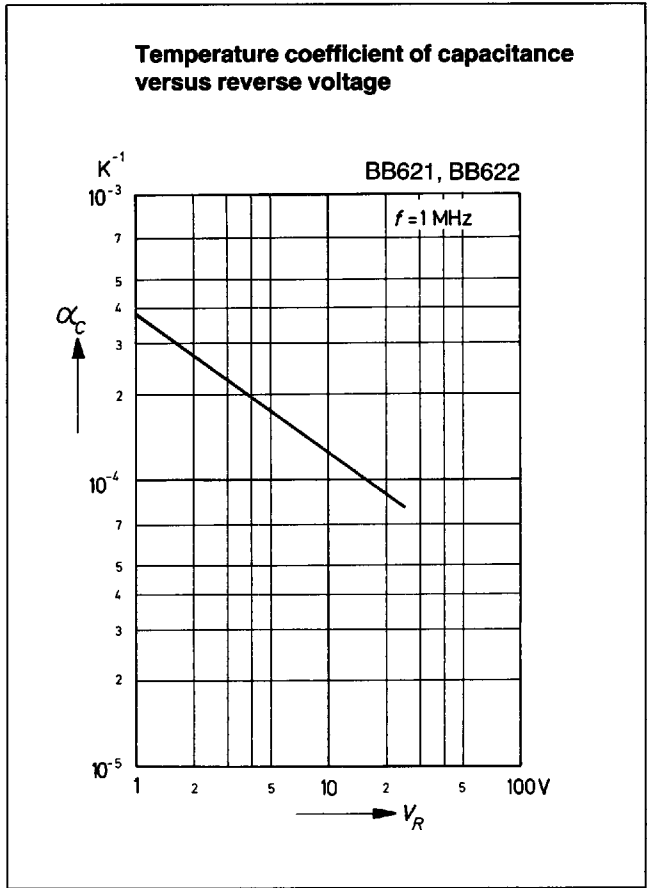
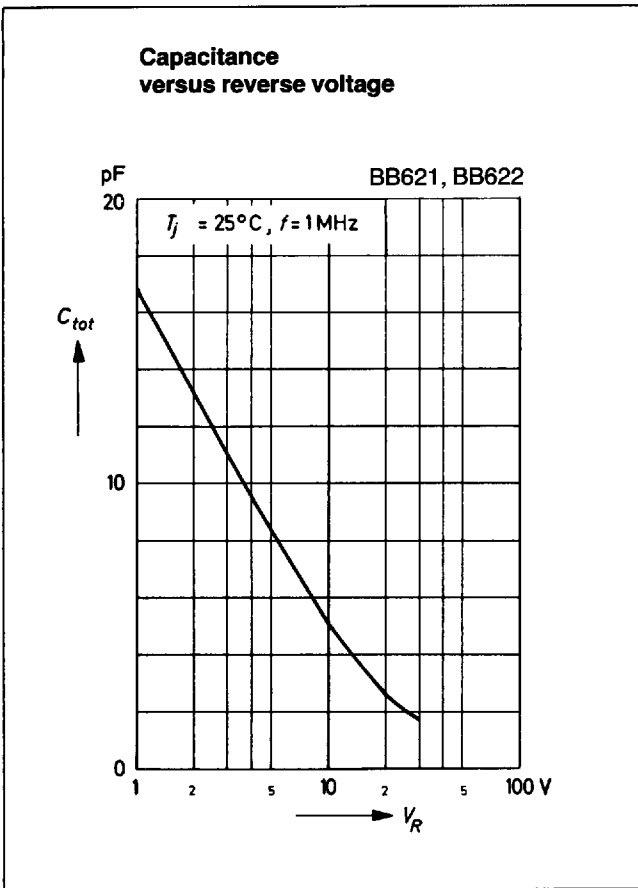
	Symbol	Value	Unit
Reverse Voltage	V_R	32	V
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_S	-55 to +150	°C

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Characteristics at $T_j = 25^\circ\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
Capacitance at $V_R = 1\text{ V}$ at $V_R = 3\text{ V}$ at $V_R = 28\text{ V}$	C_{tot}	–	17	–	pF
	C_{tot}	–	11	–	pF
	BB621 C_{tot}	1.8	–	2.2	pF
	BB622 C_{tot}	1.8	–	2.5	pF
Effective Capacitance Ratio at $V_R = 1$ to 28 V	BB621 $\frac{C_{\text{tot}}(1\text{ V})}{C_{\text{tot}}(28\text{ V})}$	8	–	9.5	–
	BB622 $\frac{C_{\text{tot}}(1\text{ V})}{C_{\text{tot}}(28\text{ V})}$	7.3	–	9.5	–
Series Resistance at $f = 470\text{ MHz}$, $C_{\text{tot}} = 9\text{ pF}$	BB621 r_s	–	0.55	0.7	Ω
	BB622 r_s	–	0.8	1	Ω
Cutoff Frequency for $Q = 1$ at $V_R = 3\text{ V}$	BB621 f_{Q1}	–	24	–	GHz
	BB622 f_{Q1}	–	16	–	GHz
Series Resonance Frequency at $V_R = 25\text{ V}$	f_0	–	2.5	–	GHz
Series Inductance	L_s	–	2	–	nH
Leakage Current at $V_R = 30\text{ V}$	I_R	–	–	30	nA
Reverse Breakdown Voltage at $I_R = 10\ \mu\text{A}$	$V_{(\text{BR})R}$	32	–	–	V
For any two diodes of a matched group the following tracking condition applies: In the reverse bias voltage range of $V_R = 0.5\text{ V}$ to $V_R = 28\text{ V}$ the maximum capacitance deviation is 2.5%.					

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