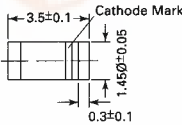


Tuner Diodes

Silicon Epitaxial Planar Capacitance Diodes in MiniMelf case 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.

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



Glass case MiniMELF

Weight approx. 0.05g
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Reverse Voltage	V _R	32	V
Junction Temperature	T _j	125	°C
Storage Temperature Range	T _s	-55 to + 150	°C

BB621, BB622

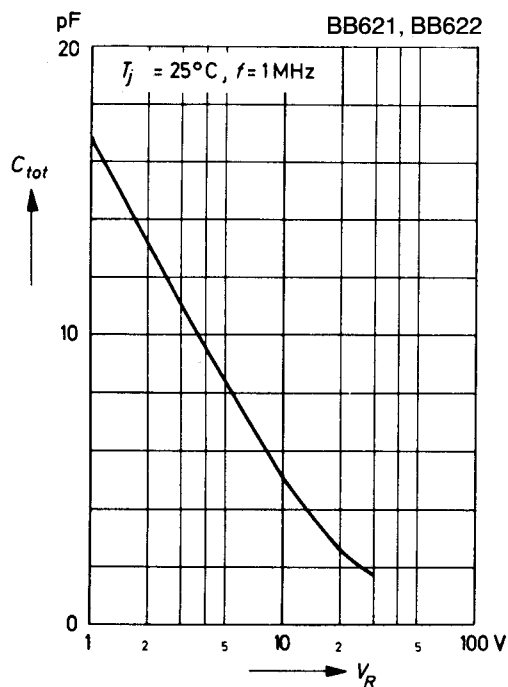
Characteristics at T_{amb} =25 °C

	Symbol	Min.	Typ.	Max.	Unit
Capacitance					
at V _R = 1 V	C _{tot}	-	17	-	pF
at V _R = 3 V	C _{tot}	-	11	-	pF
at V _R = 28 V	C _{tot}	1.8	-	2.2	pF
BB621	C _{tot}	1.8	-	2.5	pF
BB622	C _{tot}	1.8	-	2.5	pF
Effective Capacitance Ratio					
at V _R = 1 to 28 V	$\frac{C_{tot}(1V)}{C_{tot}(28V)}$	8	-	9.5	-
BB621	$\frac{C_{tot}(1V)}{C_{tot}(28V)}$	8	-	9.5	-
BB622	$\frac{C_{tot}(1V)}{C_{tot}(28V)}$	7.3	-	9.5	-
Series Resistance					
at f = 470 MHz, C _{tot} = 9 pF	r _s	-	0.55	0.7	Ω
BA621	r _s	-	0.8	1	Ω
BA622	r _s	-	0.8	1	Ω
Cutoff Frequency for Q = 1					
at V _R = 3 V	f _{Q1}	-	24	-	GHz
BA621	f _{Q1}	-	16	-	GHz
BA622	f _{Q1}	-	16	-	GHz
Series Resonance Frequency	f ₀	-	2.5	-	GHz
at V _R = 25 V					
Series Inductance	L _s	-	2	-	nH
Leakage Current	I _R	-	-	30	nA
at V _R = 30 V					
Reverse Breakdown Voltage	V _{(BR)R}	32	-	-	V
at I _R = 10 μA					
For any two diodes of a matched group the following tracking condition applies: In the reverse bias voltage range of V _R = 0.5 V to V _R = 28 V the maximum capacitance deviation is 2.5 %.					

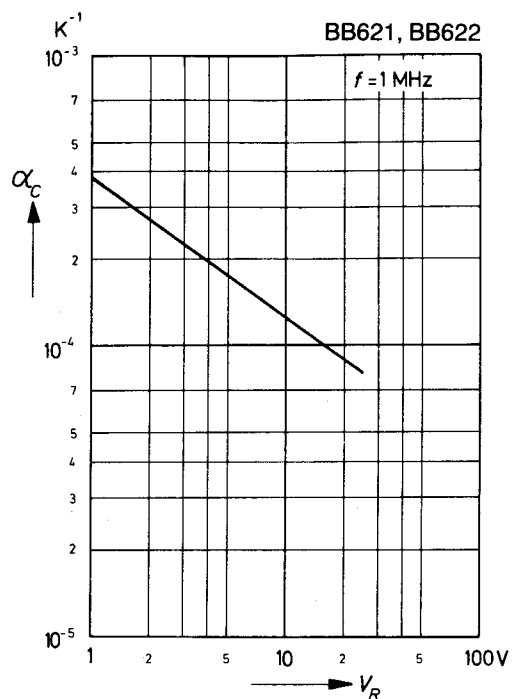


BB621, BB622

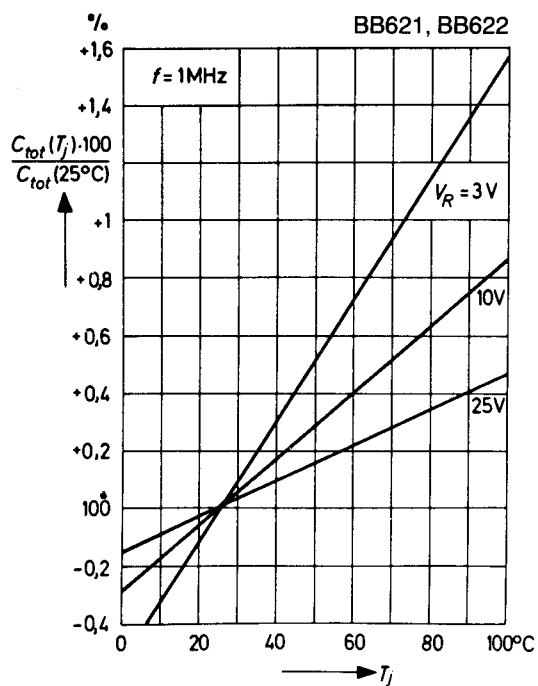
**Capacitance
versus reverse voltage**



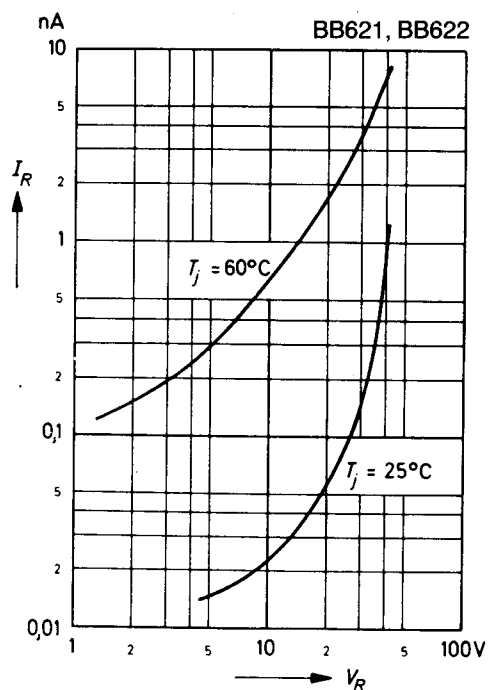
**Temperature coefficient of capacitance
versus reverse voltage**



**Relative capacitance
versus junction temperature**



**Leakage current
versus reverse voltage**



BB621, BB622

