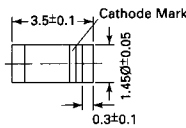


Tuner Diodes

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".

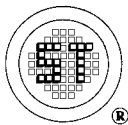


Glass case MiniMELF

Weight approx. 0.05g  
Dimensions in mm

Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

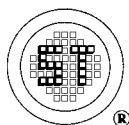
	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	32	V
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature Range	T <sub>s</sub>	-55 to + 150	°C



BB621, BB622

Characteristics at T<sub>amb</sub> =25 °C

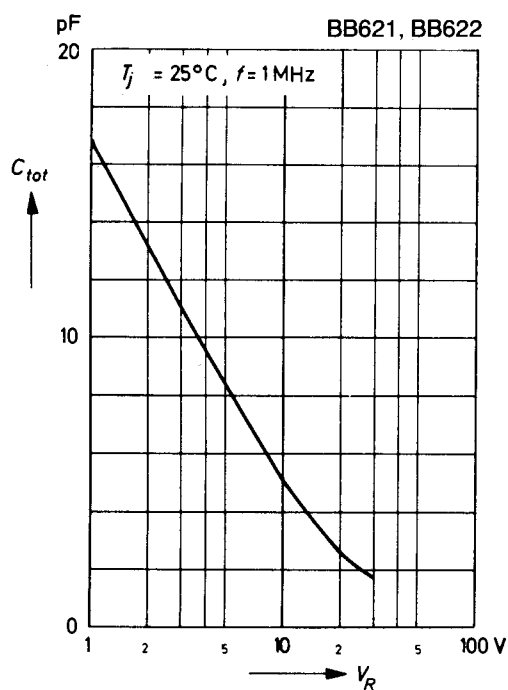
		Symbol	Min.	Typ.	Max.	Unit
Capacitance						
at V <sub>R</sub> = 1 V		C <sub>tot</sub>	-	17	-	pF
at V <sub>R</sub> = 3 V		C <sub>tot</sub>	-	11	-	pF
at V <sub>R</sub> = 28 V	BB621	C <sub>tot</sub>	1.8	-	2.2	pF
	BB622	C <sub>tot</sub>	1.8	-	2.5	pF
Effective Capacitance Ratio						
at V <sub>R</sub> =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



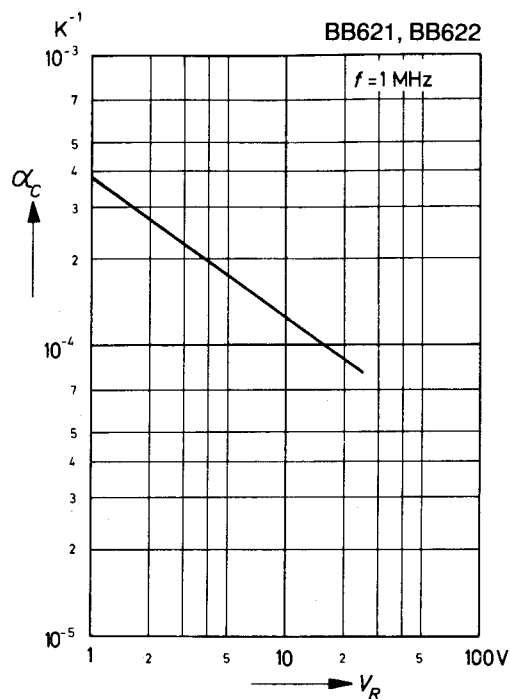
SEMTECH ELECTRONICS LTD.  
( wholly owned subsidiary of HONEY TECHNOLOGY LTD. )



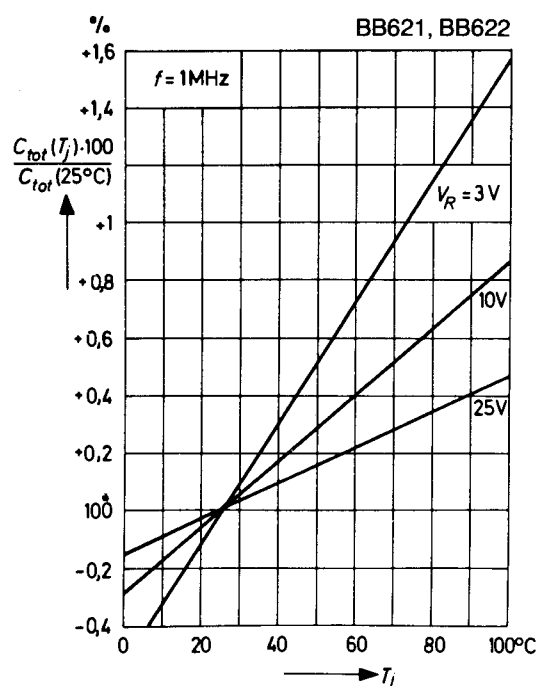
**Capacitance versus reverse voltage**



**Temperature coefficient of capacitance versus reverse voltage**



**Relative capacitance versus junction temperature**



**Leakage current versus reverse voltage**

