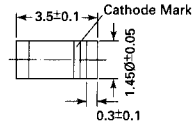
BB629

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 VHF range in TV receivers, also suited for CTV.

These diodes are delivered matched 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

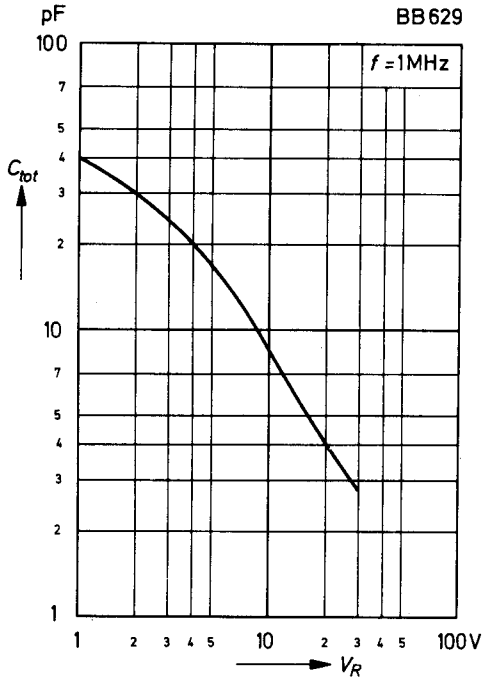
Absolute Maximum Ratings (T_a = 25 °C)

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

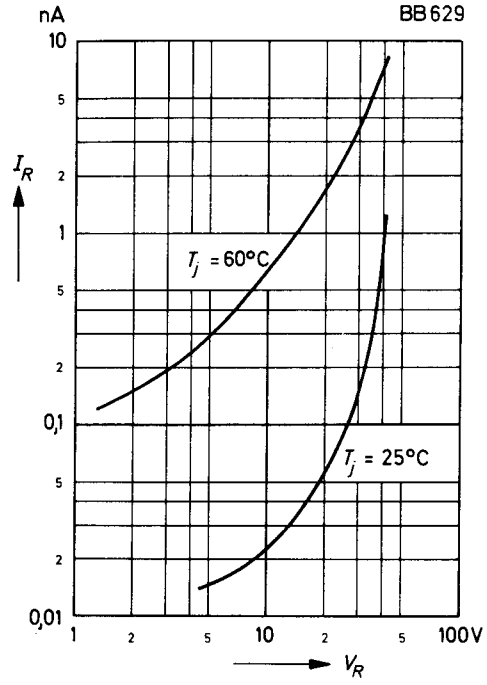
Characteristics at T_{amb} =25 °C

	Symbol	Min.	Typ.	Max.	Unit
Capacitance at f = 1 MHz at V_R = 1 V at V_R = 28 V	 C_{tot} C_{tot}	 - 2.5	 35 -	 - 3.2	 pF pF
Effective Capacitance Ratio at V_R = 1 to 28 V	$\frac{C_{tot}(1V)}{C_{tot}(28V)}$	12	-	-	-
Series Resistance (at f = 330 MHz, C_{tot} = 25 pF)	r_s	-	0.85	-	Ω
Q-Factor at f = 50 MHz, V_R = 3 V at f = 300 MHz, C_{tot} = 25 V	 Q Q	 - -	 180 250	 - -	 - -
Cutoff Frequency for Q = 1 at V_R = 3 V	f_{Q1}	-	9	-	GHz
Series Resonance Frequency at V_R = 25 V	f_0	-	2	-	GHz
Series Inductance	L_s	-	2	-	nH
Leakage Current at V_R = 30 V	I_R	-	-	30	nA
Reverse Breakdown Voltage at I_R = 10 µA	$V_{(BR)R}$	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 V to V_R = 28 V the maximum capacitance deviation is 2.5 %.					

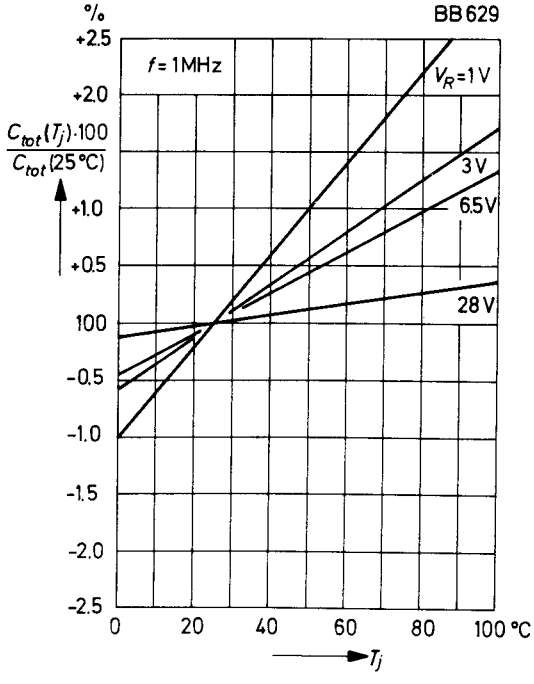
Capacitance versus reverse voltage



Leakage current versus reverse voltage



Relative capacitance versus junction temperature



Q-Factor versus frequency