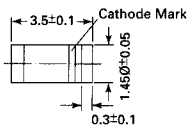


Tuner Diodes

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".

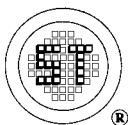


Glass case MiniMELF

Weight approx. 0.05g
Dimensions in mm

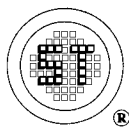
Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

	Symbol	Value	Unit
Reverse Voltage	V_R	32	V
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature Range	T_S	-55 to + 150	$^{\circ}\text{C}$

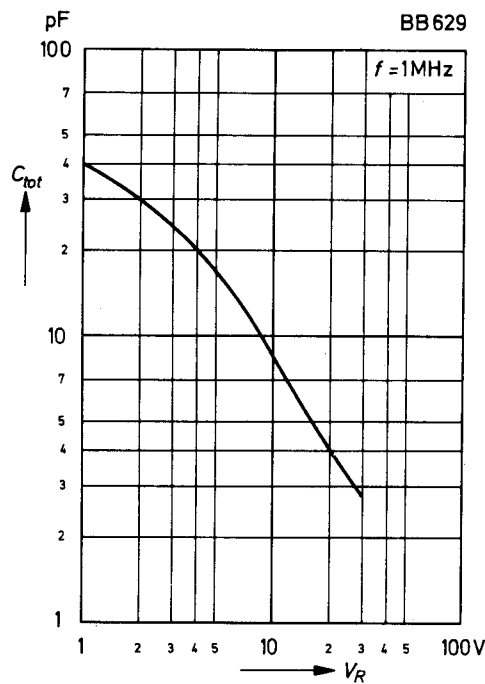


Characteristics at T_{amb} =25 °C

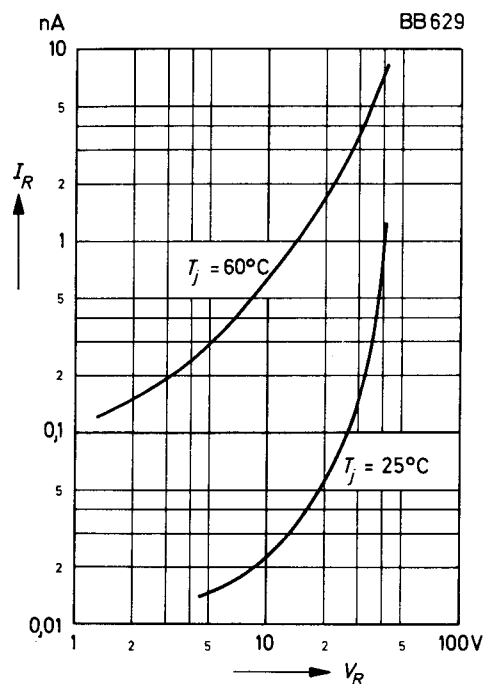
	Symbol	Min.	Typ.	Max.	Unit
Capacitance at f = 1 MHz					
at V _R = 1 V	C _{tot}	-	35	-	pF
at V _R = 28 V	C _{tot}	2.5	-	3.2	pF
Effective Capacitance Ratio					
at V _R = 1 to 28 V	$\frac{C_{tot}(1V)}{C_{tot}(28V)}$	12	-	-	-
Series Resistance (at f = 330 MHz, C _{tot} = 25 pF)	r _s	-	0.85	-	Ω
Q-Factor					
at f = 50 MHz, V _R = 3 V	Q	-	180	-	-
at f = 300 MHz, C _{tot} = 25 V	Q	-	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	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 %.					



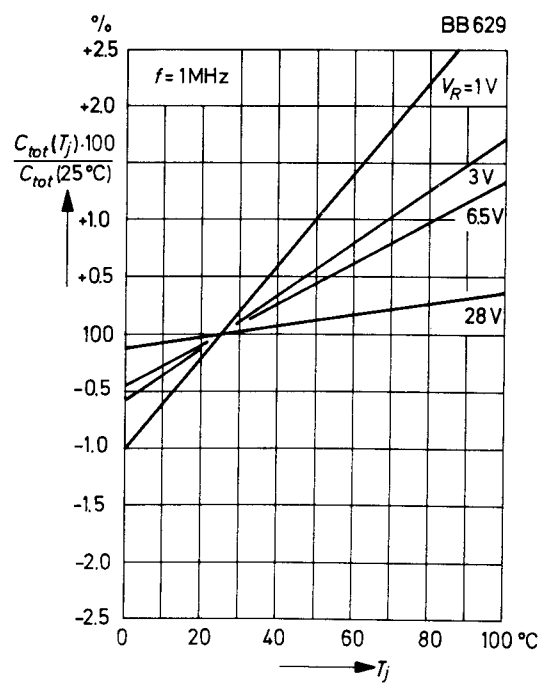
Capacitance
versus reverse voltage



Leakage current
versus reverse voltage



Relative capacitance
versus junction temperature



Q-Factor
versus frequency

