Ordering number:ENN5345A

Silicon Diffused Junction Type

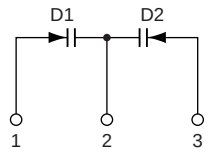
SVC344

Varactor Diode for AM Low-Voltage Electronic Tuning

Features

- Twin type varactor diode for low-voltage AM electronic tuning applivations.
- Low operating voltage (≤4.5V).
- High Q.

Electrical Connection

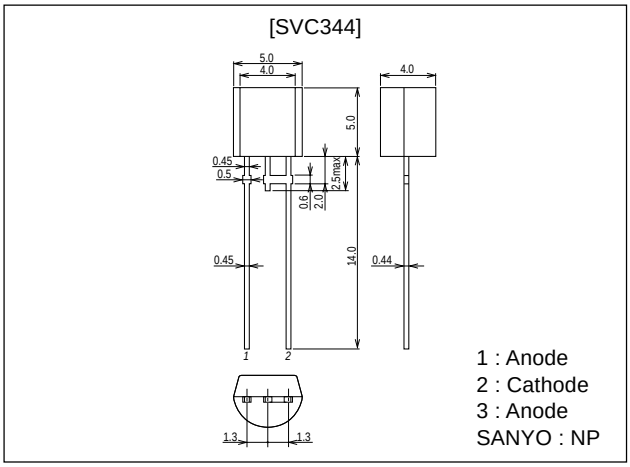


1 : Anode
2 : Cathode
3 : Anode

Package Dimensions

unit:mm

1271



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		30	V
Junction Temperature	Tj		125	˚C
Storage Temperature	Tstg		–55 to +125	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	I_R=10μA	30			V
Reverse Current	I_R	V_R=20V			100	nA
Interterminal Capacitance*1	$C_{1.0V}$	V_R=1.0V, f=1MHz*2	410.0	430.0	445.0	pF
	$C_{3.0V}$	V_R=3.0V, f=1MHz	70.0	95.0	120.0	pF
	$C_{4.5V}$	V_R=4.5V, f=1MHz	21.0	23.5	26.0	pF
Quality Factor	Q	V_R=1.0V, f=1MHz	200			
Capacitance Ratio	CR	$C_{1.0V}/C_{4.5V}$	15.0			
Matching Tolerance*3	ΔC_m1	V_R=1.0V, f=1MHz			2.0	%
	ΔC_m2	V_R=3.0V, f=1MHz			3.0	%
	ΔC_m3	V_R=4.5V, f=1MHz			3.0	%

Note)*1:The value of interterminal capacitance represent the average of mesurements for tow elements.
Note)*2:1MHz signal:20mVrms
Note)*3:$\Delta C_m=(C_{max}-C_{min})/C_{min}\times 100$ Between D1 and D2

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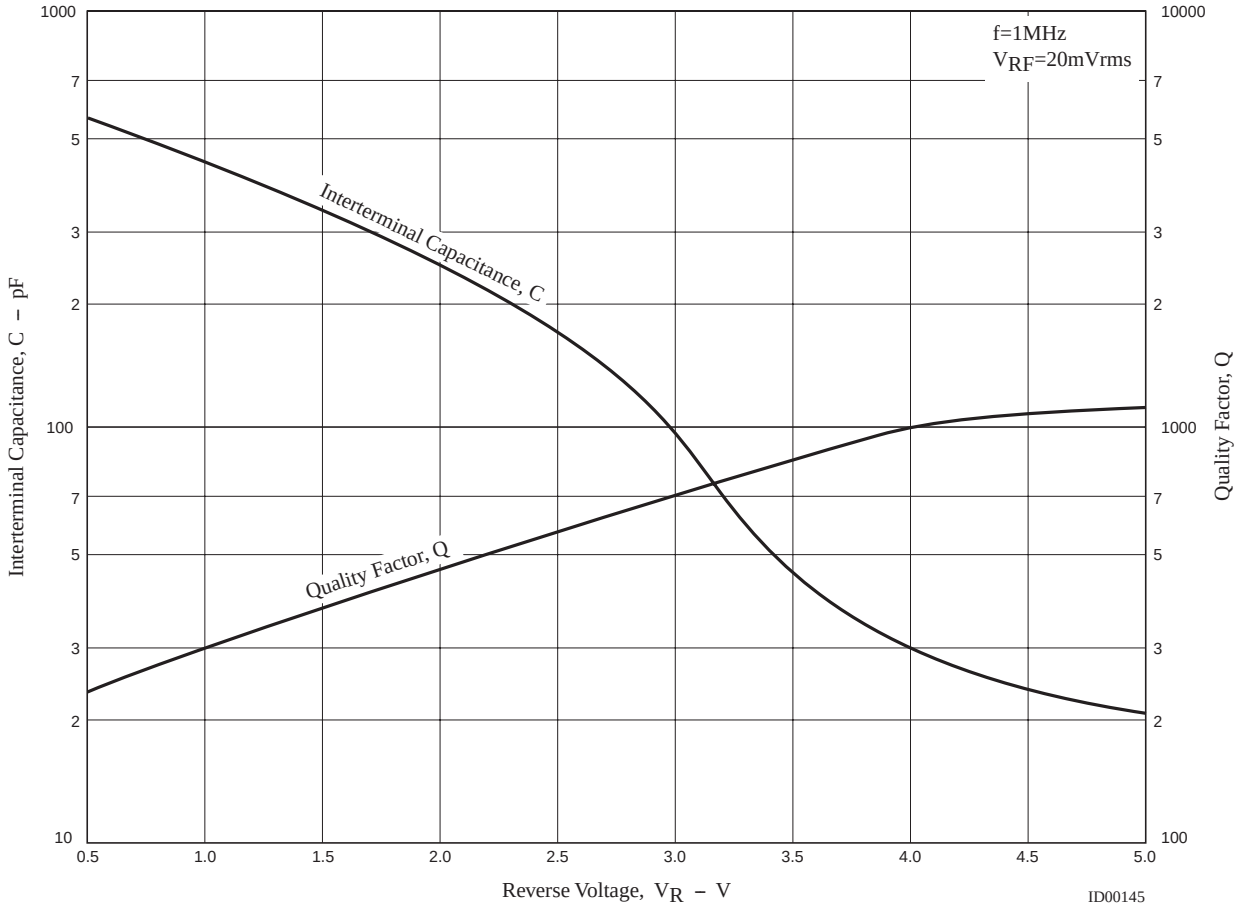
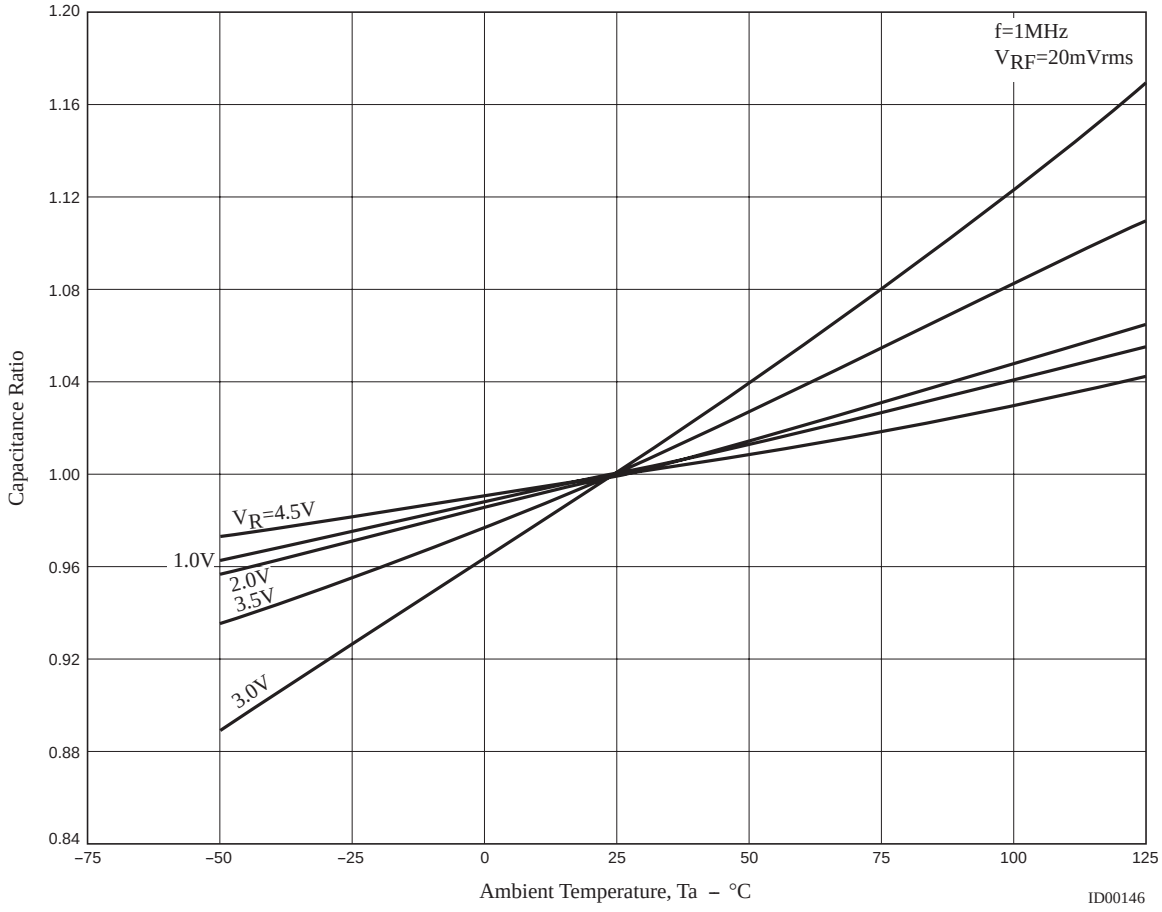
C, Q – V_R


f=1MHz
VRF=20mVrms
Interterminal Capacitance, C
Quality Factor, Q
Interterminal Capacitance, C – pF
Quality Factor, Q
Reverse Voltage, VR – V
ID00145

C – Ta


f=1MHz
VRF=20mVrms
VR=4.5V
1.0V
2.0V
3.5V
3.0V
Capacitance Ratio
Ambient Temperature, Ta – °C
ID00146