Ordering number :EN3048B

SVC363

Diffused Junction Type Silicon Diode

Composite Varactor Diode for AM Receiver Low-Voltage Electronic Tuning Use

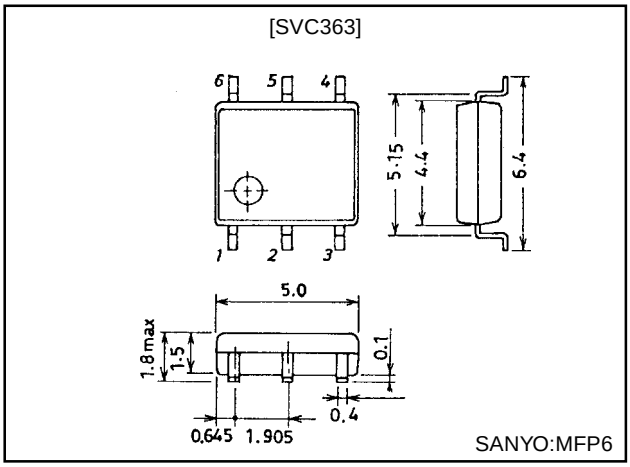
Features

- Excellent matching characteristics because of composite type.
- The number of manufacturing processes can be reduced and automatic mounting is possible because of composite type.
- High capacitance ratio and high quality factor.
- Possible to offer the SVC363 devices in a tape reel packaging.
- Surface mount type.

Package Dimensions

unit:mm

1214B



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	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	16			V
Reverse Current (One diode)	I_R	V_R=9V			100	nA
Interterminal Capacitance (Average)	C_{1V}	V_R=1V, f=1MHz*1	428.0*		500.0*	pF
	C_{6V}	V_R=6V, f=1MHz		52.0		pF
	C_{8V}	V_R=8V, f=1MHz	20.5		27.0	pF
Quality Factor	Q	V_R=1V, f=1MHz	200			
Capacitance Ratio	CR	C_{1V}/C_{8V}, f=1MHz	17.5		24.5	
Matching Tolerance	ΔC_m*2	V_R=1V to 8V, f=1MHz			±2.5	%

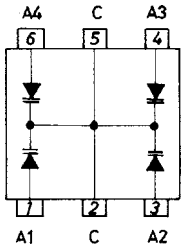
Note)*1:1MHz signal:20mVrms.

Note)*2:$\Delta C_m = (C_{Dn} - C_{D3}) / C_{D3} \times 100$

Note)*:The SVC363 is classified by C_{1V} as follows:

Rank	C_{1V}(pF)
K	428.0 to 456.5
L	447.5 to 478.0
M	468.5 to 500.0

Electrical Connection

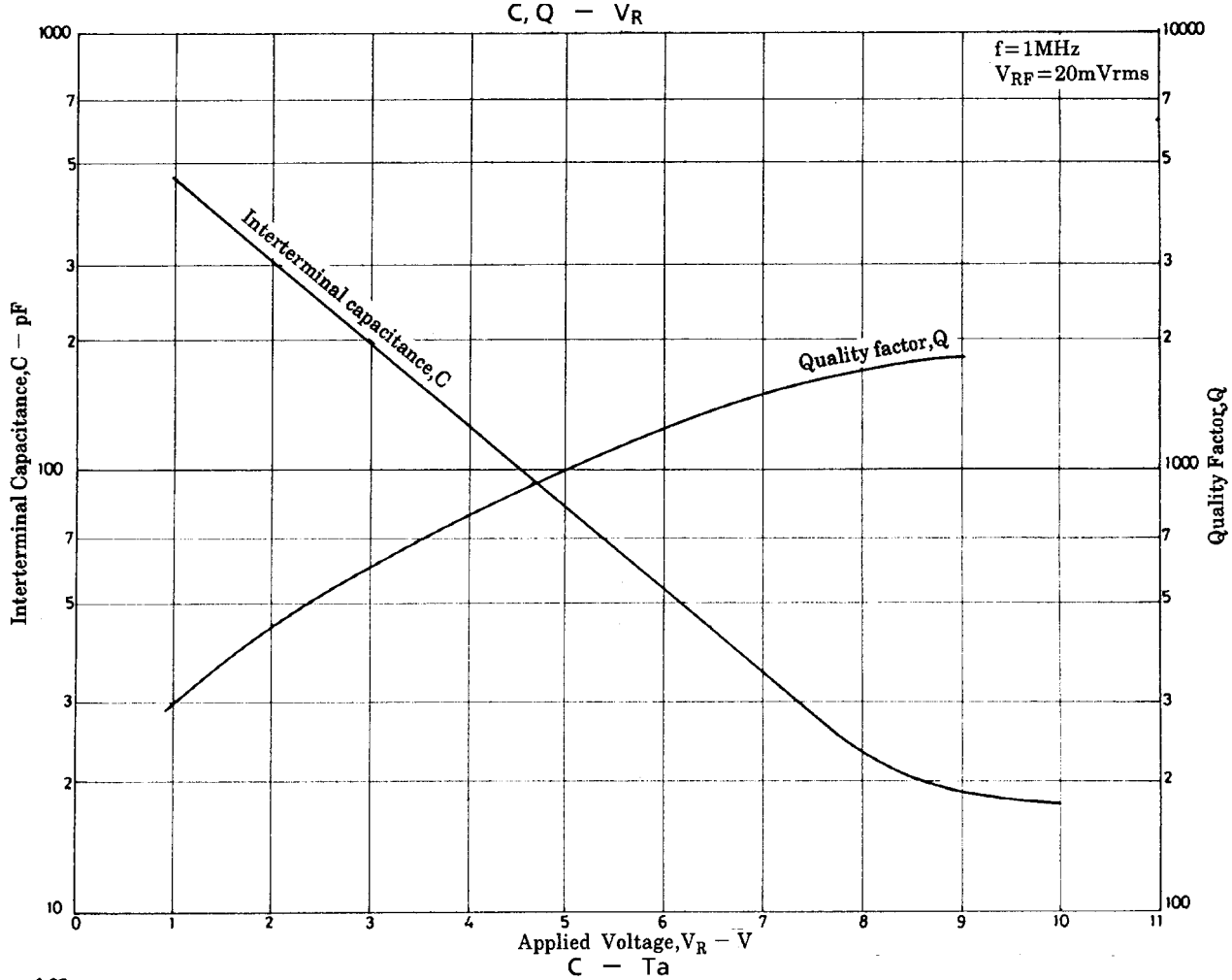


A:Anode

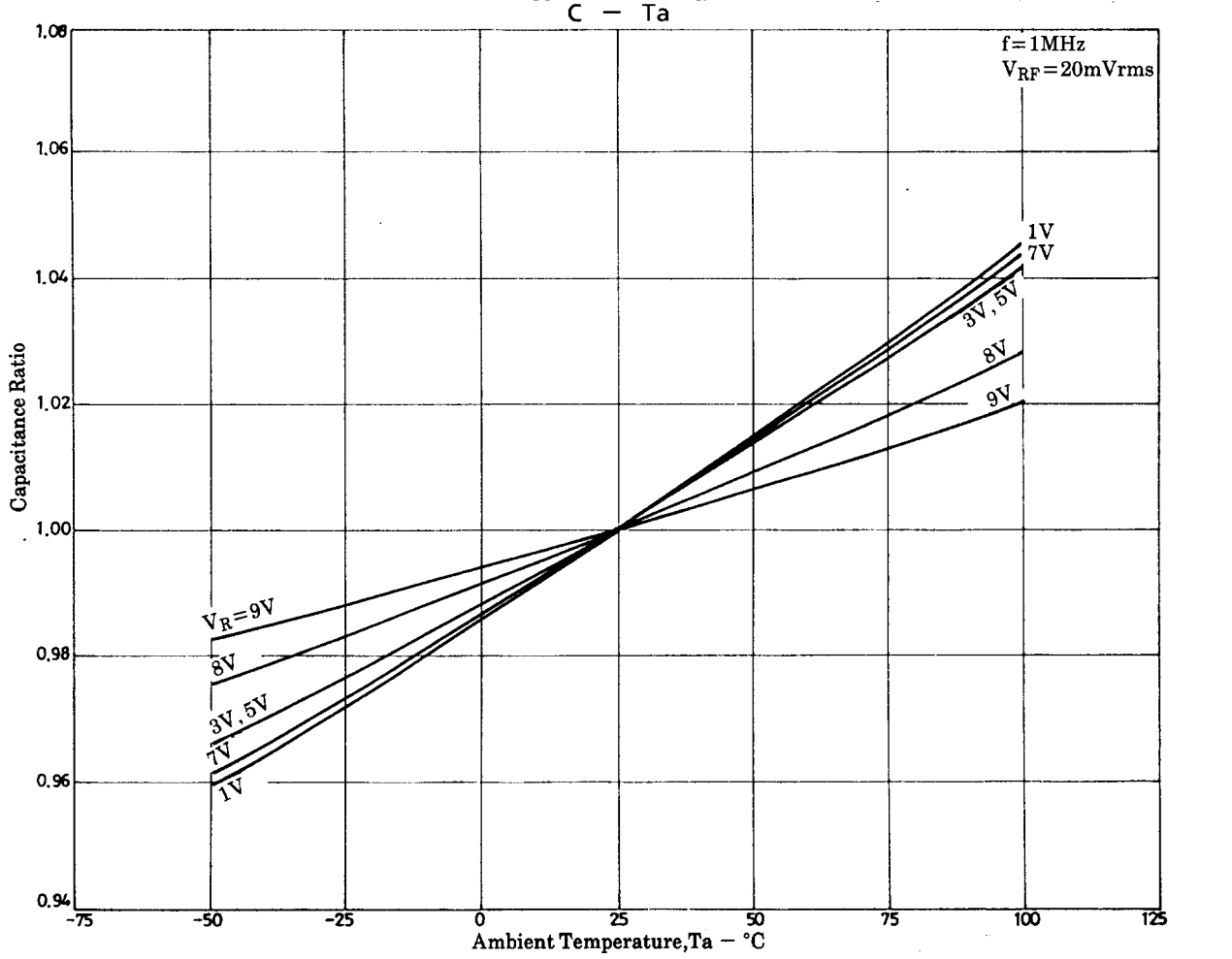
C:Cathode

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

C, Q — V_R


f=1MHz
V_{RF}=20mVrms
Interterminal capacitance,C
Quality factor,Q
Interterminal Capacitance,C — pF
Quality Factor,Q
Applied Voltage,V_R — V

C — Ta


f=1MHz
V_{RF}=20mVrms
1V
7V
3V, 5V
8V
9V
V_R=9V
8V
3V, 5V
7V
1V
Capacitance Ratio
Ambient Temperature,Ta — °C