



# EC2C03C — Variable Capacitance Diode for UHF Band VCO

Diffused Junction Type Silicon Diode

## Applications

- 0.8 to 1.9GHz band VCO applications.

## Features

- Low series resistance.  $r_s=0.55\Omega$  typ.
- Ultraminiature (1008size) and (0.6mm) leadless package.

## Specifications

### Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		15	V
Junction Temperature	$T_J$		125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

### Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu\text{A}$	15			V
Reverse Current	$I_R$	$V_R=10\text{V}$			200	nA
Interterminal Capacitance	C1.0V	$V_R=1.0\text{V}$ , $f=1\text{MHz}$ *	6.5		8.2	pF
	C3.0V	$V_R=3.0\text{V}$ , $f=1\text{MHz}$	4.0		5.2	pF
Capacitance Ratio	$C_R$	C1.0V / C3.0V		1.6		
Series Resistance	$r_s$	$V_R=1.0\text{V}$ , $f=470\text{MHz}$		0.55	0.75	$\Omega$

Marking : VA

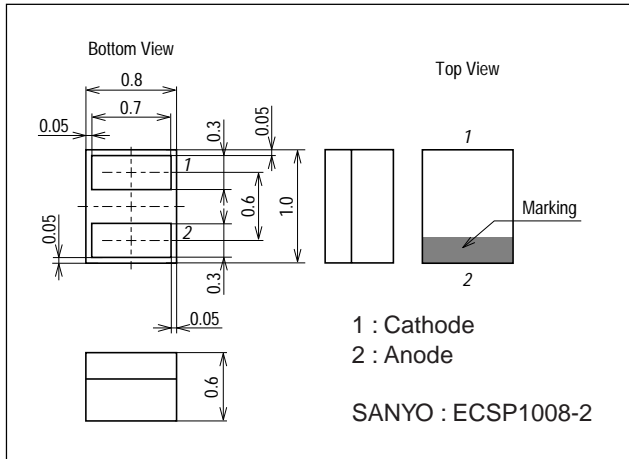
\* 1MHz signal : 20mVrms

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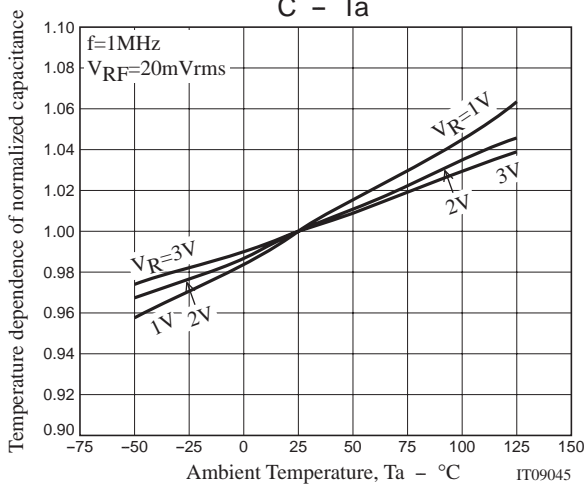
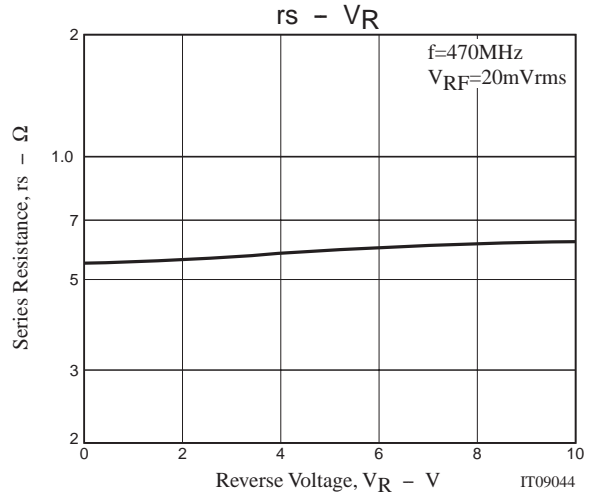
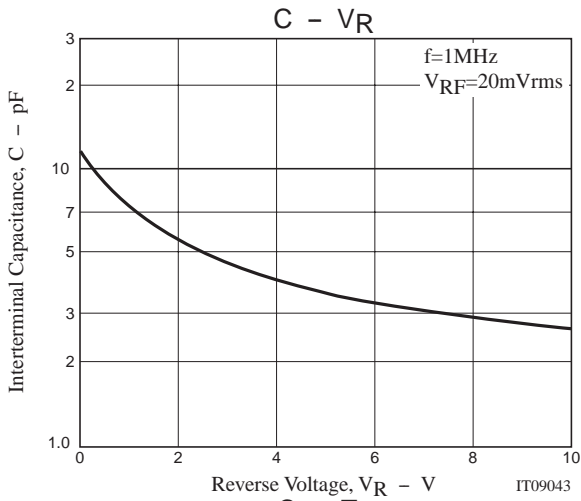
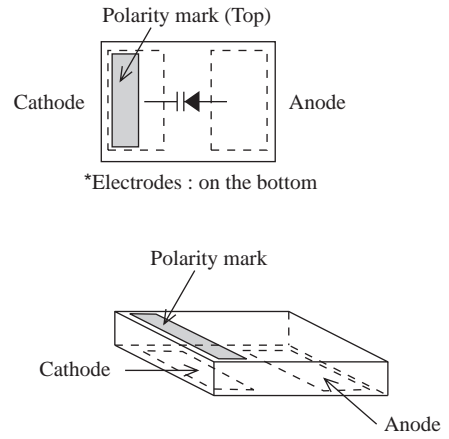
Package Dimensions

unit : mm

1324A



Electrical Connection (Top view)



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