# **MA27V22**

# Silicon epitaxial planar type

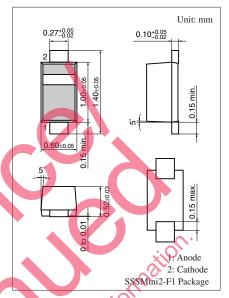
### For VCO

#### ■ Features

- ullet Good linearity and large capacitance-ratio in  $C_D V_R$  relation
- Small series resistance r<sub>D</sub>

### ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	6	V
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C



Marking Symbol:

# ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Reverse current	$I_R$	$V_R = 5 \text{ V}$			10	nA
Diode capacitance	$C_{D(1V)}$	$V_R = 1 \text{ V, } f = 1 \text{ MHz}$	17.67		19.13	pF
	$C_{\mathrm{D(4V)}}$	$V_R = 4 V, f = 1 MHz$	7.02		7.60	
Capacitance ratio	C <sub>D(1V)</sub> /C <sub>D(4V)</sub>	collegille	2.42		2.62	
Series resistance *	$r_{\mathrm{D}}$	$V_R = 4 \text{ V, } f = 470 \text{ MHz}$			0.30	Ω

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

- 2. Absolute frequency of input and output is 470 MHz
- 3. \*: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER

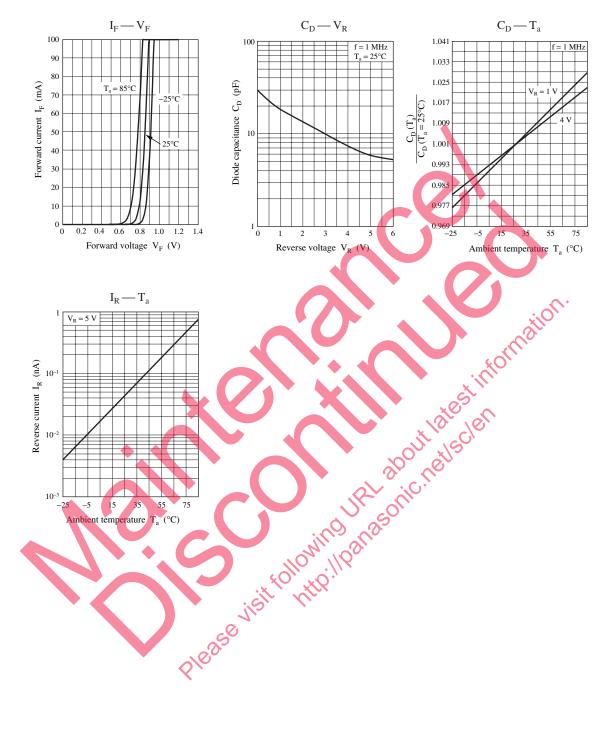
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 $10^{-3}$ 

-5 15

Ambient temperature T<sub>a</sub> (°C)

55



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