

# MA27V12

## Silicon epitaxial planar type

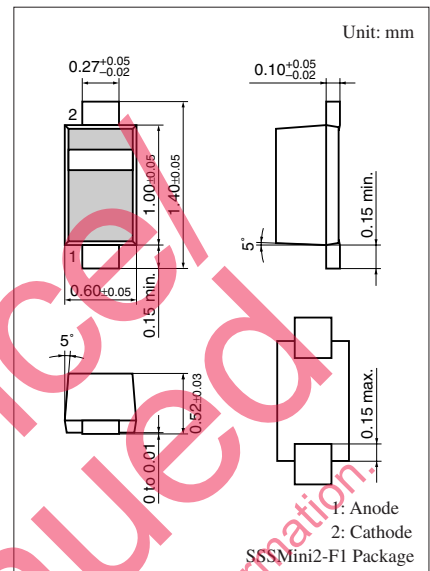
For VCO

### ■ Features

- Good linearity and large capacitance-ratio in  $C_D - V_R$  relation
- High frequency type by this low capacitance
- Ultraminiature Package 1.0 mm × 0.6 mm (height: 0.52 mm), optimum for high-density mounting and high-speed mounting

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

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	8	V
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +125	$^\circ\text{C}$



Marking Symbol: E

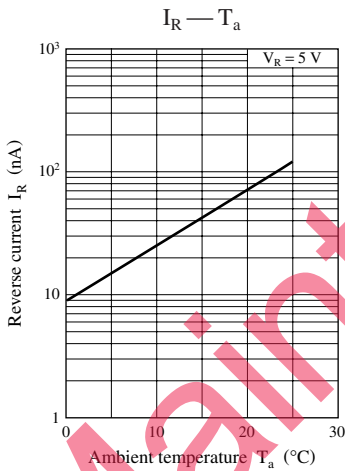
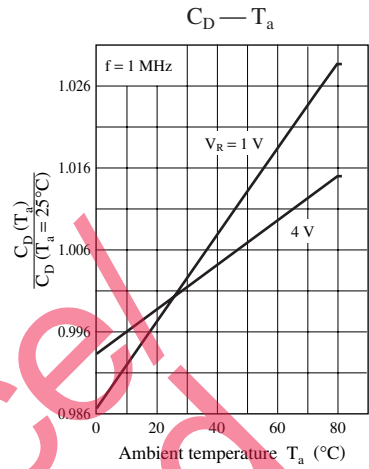
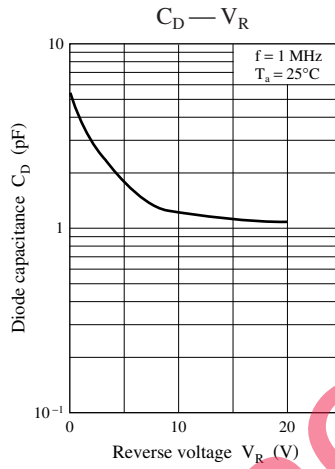
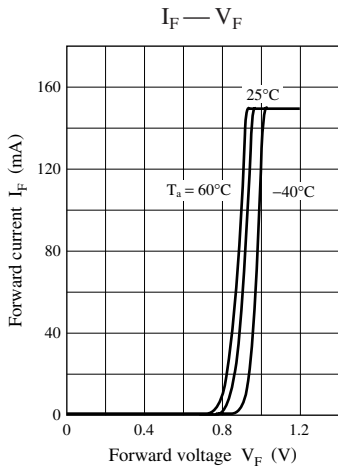
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	$I_R$	$V_R = 5\text{ V}$			10	nA
Diode capacitance	$C_{D(1V)}$	$V_R = 1\text{ V}, f = 1\text{ MHz}$	3.60		3.90	pF
	$C_{D(4V)}$	$V_R = 4\text{ V}, f = 1\text{ MHz}$	1.97		2.14	
Capacitance ratio	$C_{D(1V)}/C_{D(4V)}$		1.75		1.90	—
Series resistance *	$r_D$	$V_R = 4\text{ V}, f = 470\text{ MHz}$			0.35	$\Omega$

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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