

# MA27331

## Silicon epitaxial planar type

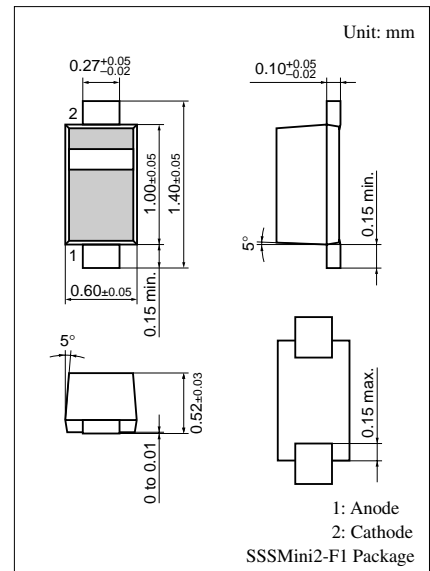
For VCO of a UHF radio

### ■ Features

- Good linearity of C – V curve
- Small series resistance:  $r_D = 0.18 \Omega$  (typ.)
- SSS-Mini type package, optimum for down-sizing of equipment

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	12	V
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$



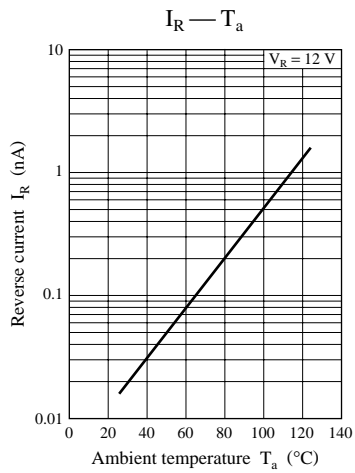
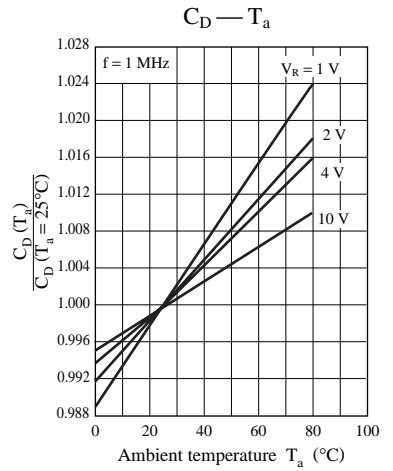
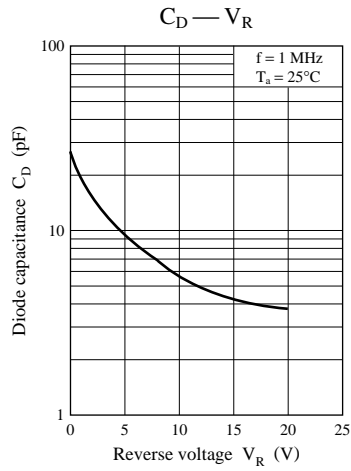
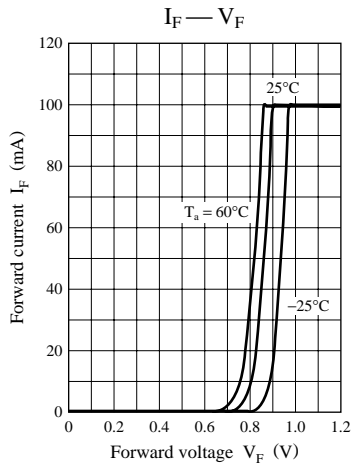
Marking Symbol: A

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 12 \text{ V}$			10	nA
Diode capacitance	$C_{D(1V)}$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	17.0		20.0	pF
	$C_{D(2V)}$	$V_R = 2 \text{ V}, f = 1 \text{ MHz}$	14.0	15.0	16.0	
	$C_{D(4V)}$	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$	10.0		12.4	
	$C_{D(10V)}$	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$	5.5	6.0	6.5	
Capacitance ratio	$C_{D(1V)}/C_{D(4V)}$		1.53	1.6	1.83	—
	$C_{D(2V)}/C_{D(10V)}$		2.25	2.5	2.75	
Series resistance *	$r_D$	$C_D = 9 \text{ pF}, f = 470 \text{ MHz}$		0.18	0.22	$\Omega$

Note) 1. Rated input/output frequency: 470 MHz

2. \*: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER



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