

MA27331

Silicon epitaxial planar type

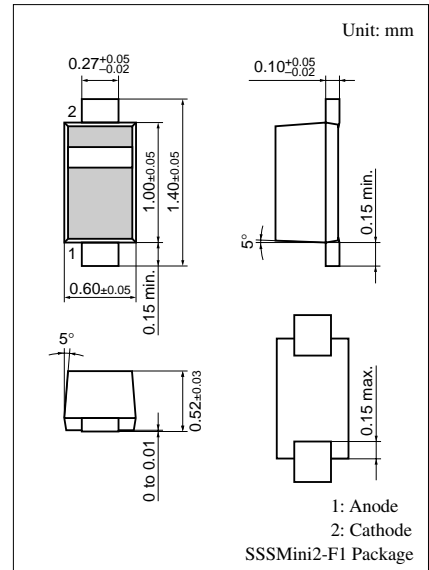
For VCO of a UHF radio

■ 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	$^\circ\text{C}$



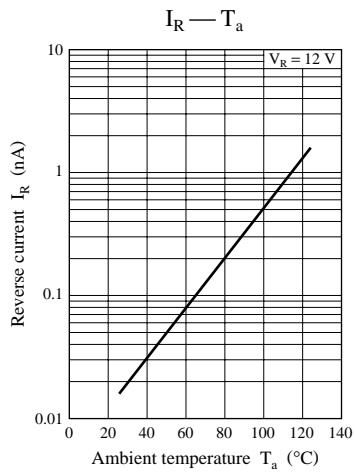
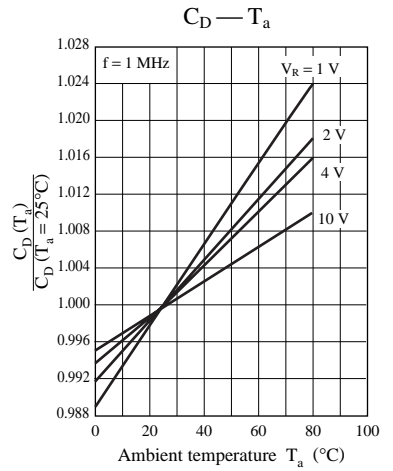
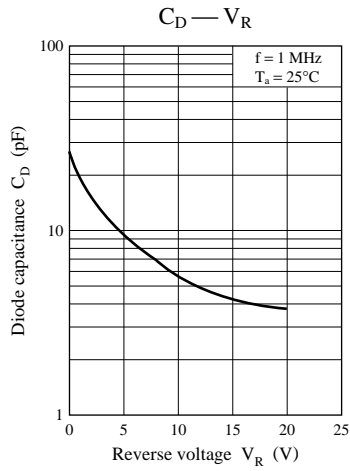
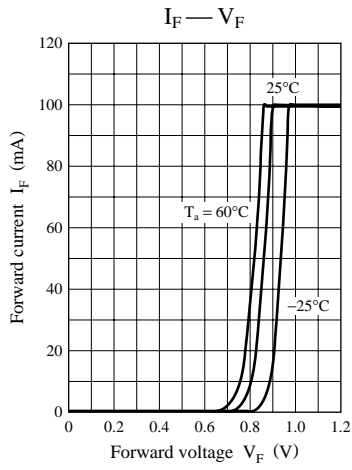
Marking Symbol: A

■ 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	Ω

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

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



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