

MA10301

Silicon epitaxial planer type

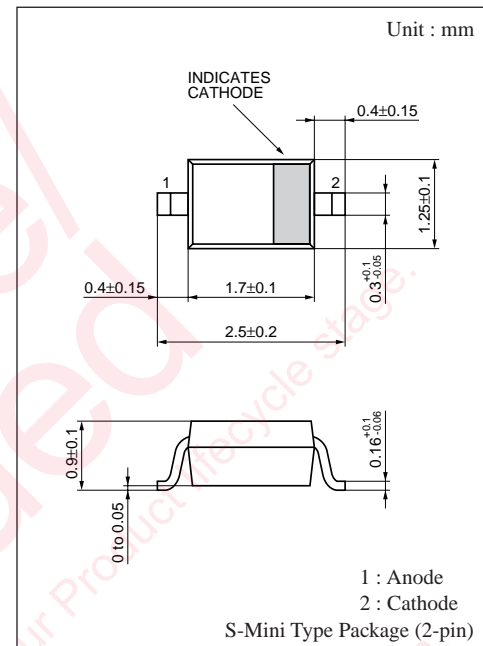
For VCO

■ Features

- Good linearity and large capacity ratio of $V_R - C_D$
- Small series resistance r_D
- S-Mini package, enabling down-sizing of the equipment and automatic insertion through taping

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	15	V
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 to + 150	$^\circ\text{C}$



Marking Symbol : 7U

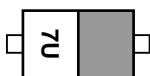
■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	$V_R = 10\text{V}$			10	nA
Diode capacitance	$C_{D(1V)}$	$V_R = 1\text{V}, f = 1\text{MHz}$	19.5		23.5	pF
	$C_{D(2V)}$	$V_R = 2\text{V}, f = 1\text{MHz}$	14.3		17.6	pF
Capacitance ratio	$C_{D(1V)}/C_{D(2V)}$		1.3			—
Series resistance	r_D^*	$V_R = 4\text{V}, f = 100\text{MHz}$			0.35	Ω

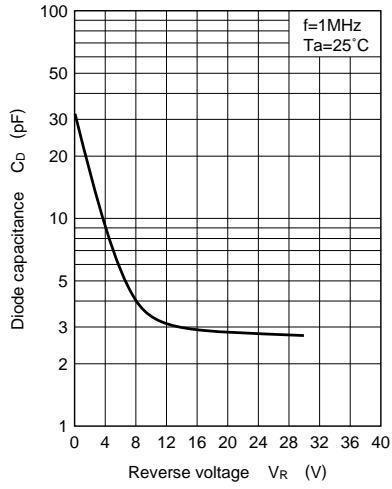
Note 1 : Rated input/output frequency : 100MHz

2 : * r_D measurement device : YHP MODEL 4191A RF IMPEDANCE ANALYZER

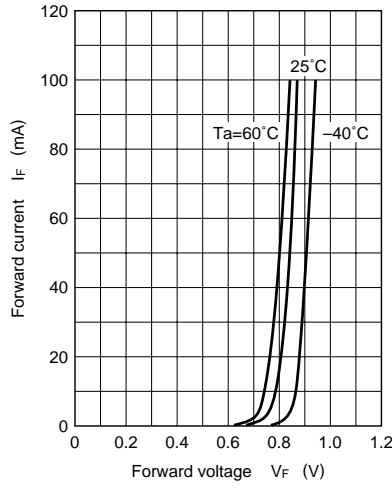
■ Marking



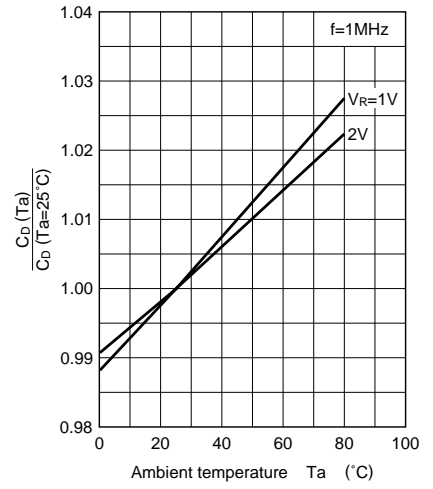
$C_D - V_R$



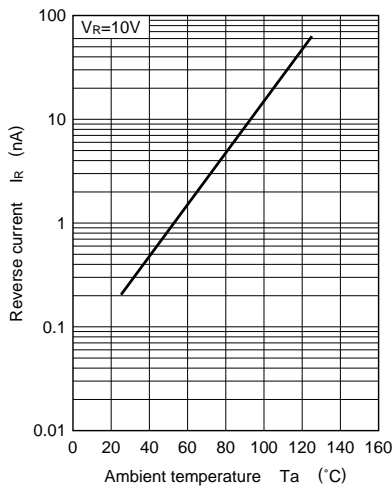
$I_F - V_F$



$C_D - T_a$



$I_R - T_a$



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